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FISCAL IMPACT STUDY FOR THE COUNTY OF
SACRAMENTO

Volume 1

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Prepared for the
Community Development and
Environmental Protection Agency
County of Sacramento

by

[McDONALD & SMART] INC.
Planning and Management Consultants
San Francisco, California

in affiliation with

[DUNCAN & JONES]
Urban and Environmental Planning Consultants
Berkeley, California

June 1975

<i>Economic and</i>	<i>Sacto co,</i>
<i>Finance County</i>	<i>" "</i>
<i>County planning</i>	<i>" "</i>

The preparation of this report was financed in part through a 701 Comprehensive Planning Grant from the U.S. Department of Housing and Urban Development administered by the State of California, Office of Planning and Research, Project Number CPA/1001.01.

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SECTION 1

1.00 STUDY PURPOSE

1.01 INTRODUCTION

Sacramento County, through its Community Development and Environmental Protection Agency (CDEPA), in August, 1974, retained McDonald & Smart, Inc. in association with Duncan & Jones to develop methodologies necessary to expand the scope of the County's existing impact assessment procedure to include fiscal and economic impacts. The emphasis in the County's assessment of land use proposals and policies has been on environmental considerations. The process developed by this study will provide CDEPA with a complementary ability to conduct economic impact assessments.

1.02 SCOPE OF INVESTIGATION

The scope of the investigation followed a work program divided into six tasks, the main products of which are incorporated in this report and the companion Guidelines.

The initial tasks defined the scope of economic impact evaluation and provided a conceptual framework for the overall study and consequently for CDEPA's approach to both policy and project level assessments. As discussed more thoroughly below, distinctions are drawn between plan/policy level and project level assessment. Further, project assessment has been classified into housing, projects, base or service employment facilities, transportation, and utility infrastructure improvements for the purpose of giving

direction in analyses of the types of situations most likely to be the subject of economic and environmental review.

The organizational framework for plan/policy and project assessment has been defined in terms of impacts on employment and population, housing, land use, and on the public sector (fiscal impacts). The organizing concepts of this study and the impact assessment procedures, while consistent with the State of California, Office of Planning and Research, Economic Practices Manual,¹ are tailored to Sacramento County's area of public interest, jurisdictional organization, and practice. The manner in which this study responds specifically to Sacramento County is described below by the study approach and task products.

The consultants' major effort was toward preparing methodologies for fiscal impact assessment. This reflects the interest of CDEPA and the objective of identifying potential public service delivery problems and mitigating adverse fiscal effects. Given the ongoing environmental review process, initial implementation is expected to be for project assessment. However, the most efficient and effective use of economic impact assessment will be at the plan/policy level where issues of efficiency in resource allocation can be best considered due to the broader scope of plan review and the wider policy choices available. Accordingly, the study methodologies maintain dual applicability to plan/policy

¹The Manual is currently under the review of the Resources Agency and tentatively scheduled for publication in summer, 1975.

and project assessment. The methods also encompass measurement of non-fiscal impacts. Employment particularly is analyzed, but consideration is also given to housing, and land use.

Fiscal concerns and public service delivery systems were the focal points of the tasks that followed the initial definition of scope. The consultants' work proceeded in sequential steps:

- . Identification of public services and revenue bases to be investigated and explicitly treated in the methodologies. The ten public services selected were those felt to be characterized first by relatively high cost, and in some cases, relatively high sensitivity to fiscal impact.
- . Preliminary identification of the main variables affecting demands for and costs of each service.
- . Preparation of questionnaires to managers of the specified services, querying them on standards used to project new levels of service and to estimate costs, current service problems, plans for service expansion, and optimal land use patterns for service delivery.
- . Response to the agency questionnaires was followed with personal interviews with agency heads. The consultants were involved in the first group of interviews along with members of the CDEPA staff who then conducted additional interviews independently.
- . The results of the interviews were incorporated directly in preparation of the service plan and cost methodologies (contained in Section 3 of this report) and were the primary way in which the methodologies presented in the OPR Economic Practices Manual were tailored to Sacramento County use.

- . After submission of drafts of sections on impacts of public services and their costs, taxes and other revenues, and housing and employment, meetings were held with CDEPA staff, the Environmental impact section, and two standing committees (a technical group composed mainly of County staff and a citizens group made up of interested professionals from education, financing institutions, the building industry, and special district). Their comments, corrections, and suggestions are reflected in this submission.
- . As part of the study (Task 4), the consultants, with participation from CDEPA staff, conducted an economic/fiscal impact assessment of a prototype development to test application of the methodologies. The exercise shifted study efforts from preparation of procedures to their application and forced interpretation of the methodologies on the basis of available data and practical agency response to a typical development situation.
- . The tangible products of this exercise were identification of useful, available data; increased awareness of the differences in appropriate estimating techniques by type of service; and identification of specific service agency constraints. It led to defining "threshold" conditions for each service above which a full or detailed assessment is warranted and below which non-detailed or indicator estimate of costs would suffice. The last product is seen as a necessary and cost effective feature of the methodologies.

This discussion is intended to deal candidly and succinctly with what we have learned from the study experience in terms of what we anticipated, what we produced, and, most importantly, what to do with it. Without reiterating the study approach or the guidelines, the salient points are these:

- . The methodologies are primarily oriented to project fiscal impact assessment. Actually, however, individual projects usually do not result in large fiscal impacts, as evidenced clearly by the Task 4 prototype assessment. The most effective project review process will identify the public service issues of supply, capacity, delivery, financing, and the like. Impacts usually can be described adequately in terms of scale of magnitude, avoiding unnecessary quantification. Analyses should uncover the points of policy choice available to decision-makers and recommend mitigating measures.
- . The economic/fiscal impact assessment presents opportunities for inter-agency communication in developing standards to forecast service plan expansion and financial impacts. Investigation has revealed wide variations in agency planning practices and, at the same time, the possibility of sharing forecasting and measurement standards formulated by districts with good data and estimating capabilities. It is foreseen that the Environmental Impact Section in CDEPA will facilitate inter-agency communication on technical procedures and policy alternatives. This work already has

begun during the study's interviews with agency supervisors. The review process is part of a political process; assessments are subject to public hearing and Board of Supervisors' action. This review process provides an opportunity for agencies to convey their areas of concern and policy preferences to a public forum.

- . The economic/fiscal impact assessment process (E/FIAP) cannot be designed to follow a strict procedure or set format. The differences among county areas, agencies, and project sites prohibit a standardized approach and require area, agency, and site specific considerations for detailed assessment. Consultation with public service supervisors is still seen as a necessary step in most assessments unless there is prior knowledge that minimal problems exist and that indicator estimates will suffice.
- . The E/FIAP should be an ongoing procedure and will reflect the cumulative effect of project assessments. While this report is the final project submission, it is the first formal document and will be subject to revision and additions. County comments, changes, and additions should be made to this manual by County staff.

As specified in the Guidelines, data should be "banked" and assumptions regarding land use and impacts on land use generated by the various projects should be incorporated in subsequent project and plan assessments. Thus, the staff

will draw on an increasingly thorough and presumably consistent set of data and planning assumptions.

- . Plan evaluation is the only means of testing for economic consistency and exploring on a sufficiently broad scale the questions of efficiency in resource allocation and public spending decisions. The above cumulative effect of project assessments should pave the way for plan and policy level analyses.

1.04 REPORT ORGANIZATION

The report is organized into seven sections following this introduction. Section 2 presents the conceptual framework for analysis, including classification of impacts and identification of typical "situations" relevant to Sacramento County. Section 3 contains the principles and procedures for analysis, along with discussion of technical issues. Sections 4 and 5 present the cost and revenue or fiscal impact methodologies which are the heart of the study. Sections 6, 7, and 8 describe the methodologies for estimating employment and population, housing, and land use impacts.

The Guidelines on implementation procedures are presented in a separate report.

SECTION 2

2.00 FRAMEWORK FOR ECONOMIC/FISCAL IMPACT ANALYSIS

2.01 INTRODUCTION

This section provides the organizing framework for plan/policy and project assessment. It first identifies the categories of impact that the analyst will assess and then discusses the approaches to follow in plan/policy and project analyses. A set of typical impact situations are presented (e.g., housing projects or public utility improvements) which cover the general types of plans and projects that CDEPA staff is most likely to encounter. The orientation of analysis will necessarily vary with the situation; and, to guide the analyst, the discussion below poses basic questions relevant to evaluating impacts in each situation.

2.02 IMPACT ASSESSMENT CATEGORIES

Five categories have been identified as the basis for evaluating plan/policy and project situations. They are:

- . Public services and their costs
- . Taxes and other revenues
- . Employment and Population
- . Housing
- . Land use

At the plan level, the above categories are evaluated to determine the parameters of the plan or policy. Whether a general plan, neighborhood, community or service plan, these categories will usually constitute the main areas of concern, for it is their interrelationship that must be investigated to determine whether a plan is internally consistent and economically feasible. Plans must explicitly describe how demand and supply relationships will be accommodated. For example, they should contain employment, population, and housing forecasts that are realistic and properly related to each other as well as to land use, public service plans, and public revenue potentials. Employment, population, and housing may represent levels of projected demand to be met, given supply constraints on land use, public services, and taxes and other revenues.

The analyst may begin plan assessment by forecasting levels of demand and relating them to supply conditions or he may begin with a set of policy constraints (i.e., growth management policies) and derive demand in terms of the "holding capacities" of the plan. In the latter case, this may mean finding the population and housing levels that can be accommodated given restrictions of zoning or public service capacities. There is no set order for considering the impact assessment categories. It will depend on which parameters, if any, have been defined.

2.03.1

GENERAL PLANS

The general plan is one of the plans that should make economic and fiscal sense if it is to be realistic and relevant. General plans have traditionally recognized the necessity of reasonable employment, population, housing, and land use relationships. We feel that there also are significant advantages in analyzing a general plan's implications in that potential difficulties, cost of providing services, and the revenues available in the medium- to long-term time horizon can be determined.

2.03.2

COMMUNITY PLANS

Community plans are probably even more important than the general plan in evaluating the difficulties of providing services. The smaller area allows for a heightened focus on location-sensitive costs. Community plans are also the ideal level for citizen perception of planning impacts and constructive involvement in the land use planning process.

2.03.3

PUBLIC SERVICE PLANS

The last major set of plans for which economic and fiscal assessment should be made are service plans prepared by the agencies that provide major services in the area. Such plans must be prepared and available for the impact assessment process if accurate information on service provision problems inherent in community plans and individual projects is to be generated. The other main value of such plans for the assessment process lies in the fact that proposed

agency facilities can be understood in the context of their role in the total service program. Any land use difficulties could be raised early rather than at the time of the EIR for a specific new facility.

A means of integrating year-to-year implementation of these facility plans with the general plan is afforded by Section 65101C of the government code, which requires annual review of the proposed capital outlay of local agencies by the Planning Agency.

2.03.4

QUESTIONS TO BE ADDRESSED IN PLAN/POLICY
ASSESSMENT

The following questions address issues relevant to plan/policy analysis for each of the five categories of impact. Reference to discussions in the methodology sections appear in parentheses after each.

The methodology in Section 6 is concerned with forecasting base employment, population-serving employment, rates of participation in the labor force and estimating construction employment. The following questions should be asked when the analyst wishes to validate employment projections and check them for "reasonableness" in relation to population forecasts:

- . Are economic base employment estimates (employment multipliers) realistic? (Section 6.01.4 & Table 6.01-1)
- . Are total employment and service employment appropriate multiples of basic employment? (Section 6.01.4 & Table 6.01-1)
- . Is the community plan's share of regional population and employment reasonable? (Sections 6.01 and 6.02)

The methodology in Section 7 covers estimating dwelling unit demand, given population forecasts; evaluating adequacy of housing plans, given the population's income characteristics; and evaluating housing cost trends and public housing proposals.

- . Is an adequate number of housing units projected?
(Section 7.02.2.1)
- . Is adequate land appropriately zoned? (Section 7.02.2.2)
- . Does the general plan accommodate a "fair share" of the region's growth in housing for all income classes? (Section 7.02.2.3)
- . Are any programs needed (or do they already exist) for the conservation or rehabilitation of the community's housing resources? (Section 7.02.2.4)
- . Are housing costs likely to inflate faster (or slower) than household income? (Section 7.02.2.3)
- . Are any local governmental policies contributing to this situation? (Section 7.02.2.3)
- . Which residents of the community currently have inadequate housing or housing too expensive for their incomes? (Section 7.02.2.4 & Table 7.02-6)
- . Can any programs be devised to mitigate the situation? (For analyst to recommend.)

The methodology in Section 8 notes the major considerations in general plan formulation, specifically land use supply and demand forecasts, considerations of unique resources, and policies on undeveloped land.

- . Is adequate land provided for desirable activities? i.e., for housing, industrial, office, retail space, etc? (Section 8.02.1)
- . Are there adequate provisions for preservation of open space, agricultural land uses? (Section 8.02.3)
- . Are any scarce land resources reserved for appropriate uses? (Section 8.02.2)
- . Are the zoned densities appropriate? (Section 8.02)
- . Are the land uses well-located with respect to public services, especially transportation facilities? (Sections 8.02.1 & 8.03)

The following questions address the adequacy of public service plans in terms of projected population and land use plans. They address issues of growth, no growth, and associated impacts on service capacities, service delivery, and financing plans. Since the questions apply to all of the ten service areas discussed in Section 4 methodologies, references are not cited.

- . Do the service plans reflect the needs projected in the general and neighborhood plans?
- . Are the general and neighborhood plans designed to minimize service difficulties and costs?
- . Is growth (or the lack of it) a problem in the provision of services?
- . Is the pace of growth creating a problem for services?
- . Are there service facilities for which increased loads will result in less satisfactory service?
- . Are there difficulties in expanding service capacities?
- . Will growth require capital improvements that will be unutilized for a long time?
- . Are there service capacities that will go unutilized without growth?
- . Will the need for new facilities caused by growth lessen the cost of upgrading any services?

The methodologies in Section 5 cover estimating procedures for all significant local revenue sources. At the plan level, adequacy of revenues to underwrite public services is the overriding issue.

- . What are the most important revenue sources?
(Section 5.01)
 - . What will these generate in the future?¹
 - . Will the base of these revenues be affected by the plan?¹
 - . Will revenue sources differ significantly among plan alternatives?¹
- . Are additional revenues needed to finance the level of public services required by the plan?²
 - . Are any new revenue sources available?²
 - . Are the new sources appropriate to raise funds for the purpose (s) for which they are needed?²
 - . Which of the existing revenues could be increased?²
 - . Can the plan be modified to reduce the deficit?²

¹See separate discussion under each revenue source in Section 5.

²Sections 4 and 5 contain methodologies for cost/revenue analysis that respond to these questions in terms of specific services. The analyst should consider these questions with respect to the specific revenues to be emphasized in the analysis.

In project impact assessment, the analyst is qualitatively and quantitatively measuring the impact of a proposed project in terms of the five categories cited above. At the project level, consistency with existing plans and policies is evaluated first, then the proposed project may be evaluated in terms of the relative difference between it and a reasonable project alternative.

The greatest number of economic/fiscal assessments by Sacramento County will be for individual projects. We anticipate that the County should have the capability to assess the following types of situations:

- . Housing projects
- . Industrial and commercial developments (basic employment)
- . Retail and service developments (service employment)
- . Transportation facility improvements
- . Utility infrastructure improvements

Accordingly, the questions below are relevant to project assessment for each of these situations. The checklist of questions provides a structure for organizing the analysis procedures and materials. An analyst beginning work on the economic components of an impact report on a single family home subdivision, for example, should refer to the questions below, and then the housing section and related methodology sections in this report and the Economic Practices Manual for relevant assessment procedures and data.

In the analysis of individual projects, the first set of questions to be asked concerns the relationship of the project to operative plans.

- . Is the proposed project in conformance with plans?
 - . The general plan? the neighborhood plan? public service plans?
- . How good are the plans?
 - . Are they realistic? comprehensive? up-to-date?
 - . Do the plans respect economic and social considerations?
 - . Is there public awareness of the plans and general consensus on matters related to the project?

To the extent that the project is in conformance with the plans and the plans are good,

- (1) describe the conformance
- (2) summarize plan logic and applicable data

The calculation of the impact (comparison with alternatives) is not too important.

To the extent that the project differs with the plans and the plans are good,

- (1) highlight the differences
- (2) forecast the future with the project
- (3) compare project future with plan future

The evaluation of the impact (comparison with plan future) is very important.

To the extent that the plans are poor or lacking,

- (1) forecast likely alternative futures, with and without the project
- (2) consider the problems and costs of providing service for the alternatives
- (3) compare the alternatives

The evaluation of the impact (comparison of alternative futures) is important. The principles and procedures that apply to selection of alternative and subsequent steps in impact assessment are the subject of Section 3.

The following paragraphs contain a checklist of questions to be considered in the five analysis situations.

Checklist of Questions

- . For what population will the housing provide residences?¹
 - . How many children of school age will there be?
- . How much construction employment would be generated?
- . How many employees (and their families) would be housed?
 - . Where are their probable job sites?
- . Is there a need for the housing?¹
 - . Is new housing construction ahead or behind projected community needs?
 - . Is the area's vacancy rate high or low?
 - . Is the housing likely to be developed elsewhere if not on this site? Where?
- . What will the housing cost?
 - . What portion of the population can afford it?
 - . If housing costing less can be built, are there other more desirable sites for it?
 - . How do the housing costs compare with existing neighborhood housing costs?

¹Suitable for emphasis in some impact situations.

- . Is the density appropriate?¹
- . What impacts will the project have on nearby land use activities?¹
 - . Are there modifications that would mitigate any disadvantageous impacts?
- . What public agency revenues are generated?
 - . Property tax
 - . Other revenues
- . What are the difficulties (and costs) involved in the provision of public services?¹
 - . Schools
 - . Other public services
 - . Would the problems (and costs) soon be present?
- . Are non-public residential services (shopping, etc.) accessible?

¹Suitable for emphasis in some impact situations.

2.04.3

ANALYSIS OF INDUSTRIAL AND COMMERCIAL
(Base) FACILITIES¹

Checklist of Questions

- . How much construction employment would be generated?
 - . Is construction activity presently below average?
- . What long-term employment and business would be created?²
 - . On the project site?
 - . In complementary base employment/business?
 - . In service employment/business?
 - . What is the short- and long-term unemployment impact?
- . What is the implicit population impact?²
 - . Is the amount and rate of growth consistent with city goals?
 - . How much housing will be needed?
 - . Will the housing be available?
- . Is this a good site for the facilities?²
 - . Are the facilities likely to be developed elsewhere if not on this site? Where?

¹Industrial plant and office buildings for company headquarters are examples of economic base facilities. A description of economic base activity is given in Section 6.02.3

²Suitable for emphasis in some impact situations.

- . Are there more appropriate uses for the site?
- . Might project denial amount to inverse condemnation?¹
- . Is the density appropriate?
- . Is the timing appropriate?
- . What public agency revenues are generated?
 - . Property tax
 - . Other revenues
- . What difficulties (and costs) are involved in the provision of public services?²

¹Projects can be rejected on the basis of anticipated adverse environmental and economic impacts. Denial of development on one site because another location appears more appropriate, however, might be interpreted as inverse condemnation of the first site. The analyst is simply cautioned on this to indicate that there are constraints in evaluating the suitability of a site which disallow arbitrarily suggesting that a proposed development take place elsewhere.

²Suitable for emphasis in some impact situations.

Checklist of Questions

- . How much construction employment would be generated?
 - . Is construction activity currently below average?
- . What long-term employment and business are involved?
 - . What residential market is served?
 - . Is it likely to be incremental or replacement business?
- . Is this a good site for the facilities?²
 - . Are the facilities likely to be developed elsewhere if not on this site? Where?
 - . Are there more appropriate uses for this site?
 - . Could project denial lead to inverse condemnation?³
 - . Is the density appropriate?
 - . Is the timing appropriate? .

¹Shopping centers and commercial strip development are examples of service facilities.

²Suitable for emphasis in some impact situations.

³Projects can be rejected on the basis of anticipated adverse environmental and economic impacts. Denial of development on one site because another location appears more appropriate, however, might be interpreted as inverse condemnation of the first site. The analyst is simply cautioned on this to indicate that there are constraints in evaluating the suitability of a site which disallow arbitrarily suggesting that a proposed development take place elsewhere.

- . What public agency revenues are generated?
 - . Property tax
 - . Sales tax
 - . Other revenues
- . What difficulties (and costs) are involved in the provision of public services?¹

¹Suitable for emphasis in some impact situations.

(Excluding Transportation Improvements)

Infrastructure is used here as a general term referring to improvements (usually physical) which are the means of delivering public services. Utility facilities (pipes, treatment plants, etc.) and public buildings (libraries, fire stations, etc.) are examples of public infrastructure about which the questions below would be asked. Transportation improvements are discussed in the following subsection.

Such a wide category of improvements requires that the questions below be asked in general terms. Yet, the questions are adequate because the same rules apply to all of the cases. Improvements should not be proposed in isolation but as part of plan to supply services. Even at the implementation stage, a check should be made for alternatives and mitigating factors. The public and their elected decision-makers should be aware of the subgroups who benefit, as well as the distribution of the costs and any other negative impacts.

Checklist of Questions

- . Is the improvement consistent with plans?
 - . Is it part of a service plan?
 - . Will it enhance fulfillment of the general plan and neighborhood plans?
- . What are the benefits?
 - . Will public safety be enhanced? Lesson chance of disease, injury?

- . Will appropriate development (or other activities) no longer be deferred?
- . Will quality of services, opportunities, convenience and/or amenity be enhanced?
- . Which subgroups of the population will benefit?
- . Could alternative location, methods and/or timing achieve greater benefits?
- . What are the costs?
 - . Are the costs reasonable, given the benefits?
 - . Could alternative location, methods and/or timing lessen cost or other undesirable impacts?
 - . Are the costs greater than similar existing facilities? If so, is the increase explicable?
 - . Who bears the costs? Is the distribution justifiable?

Road construction and initiation of bus service are the two common improvements in a transportation system to which the questions below would be applied. Transportation improvements are similar to what has been termed public infrastructure; however, some differences exist, and transportation is a sufficiently important area to justify more specific questions.

Checklist of Questions

- . Is the improvement consistent with plans?
 - . Will it enhance fulfillment of the general plan and neighborhood plans?
- . What locations will benefit from improved accessibility?
 - . What locations will have relatively lesser accessibility?
 - . Will the new accessibilities enhance favorable development patterns?
 - . What subgroups of the population will benefit? Are they subgroups with relatively limited transportation opportunities?
 - . Could improvements in other modes alternative locations or timing achieve greater benefits?
- . What impacts will the improvement have on other transportation needs?

- . Will it lessen congestion on another mode?
- . Will it undercut the financial feasibility of another mode?
- . What are the costs?
 - . Are the costs reasonable, given the benefits?
 - . Could improvements in other modes or alternative locations or timing lessen cost or other undesirable impacts?
 - . Who pays the costs? Is the distribution justifiable?

SECTION 3

3.00 ECONOMIC AND FISCAL IMPACT ASSESSMENT PRINCIPLES AND PROCEDURES

3.01 ECONOMIC IMPACT ASSESSMENT

This section describes the primary principles and procedures that should be kept in mind when undertaking impact assessment. The perspective suggested here should minimize the waste of resources that occurs when an assessment has the wrong focus. The latter part of this section addresses itself directly to fiscal impacts and emphasizes the procedural steps involved. This part, which focuses on general principles, is applicable to all categories of economic/fiscal impact assessment.

The following principles are discussed below:

1. Impact is the difference between two alternatives.
2. Plans are the most important reference in project assessment.
3. "Does it pay its own way?" is usually a misleading question.
4. The focus should be on options open to policymakers and the public.
5. Impacts on subgroups should be delineated.
6. A time frame and geographic area adequate for the analysis are important.

This statement is a definition of what we mean by the work "impact" and holds in every situation. (At times, an analyst forecasts a future -- i.e., does not forecast an alternative -- but in such a situation no impact is identified.) Only when two alternative futures are compared is an impact considered.

Several rules can be stated concerning the comparison of alternatives. The first is that the alternative to the plan or project be realistic. (Obviously, the proposed plan or project also should be realistic.) Violations of this rule commonly occur in the analysis of a "no-project" alternative. Any no-development alternative should include the consequences associated with a lack of development, for example, public purchase of land, agricultural zoning, etc.

Another rule is that the impact (the difference between two alternative futures) is in the future. Often the analyst merely compares the situation given the project with the present situation. Such an analysis usually contradicts both "realistic alternatives" and the "impact in future" rules. Merely picturing both alternatives at the point in time when the project would be completed also is short-sighted. The correct perspective is to realize that the alternatives each continue for many years and the most critical problems may occur in association with other development several years after project completion. As an example, a project may not immediately overload the road and sewer system, yet be a major user when overloading occurs a few years later.

Finally, the analyst should include relevant components of the economic (and social) system rather than assuming that the important impacts occur on the site. In environmental assessments, a comparatively large share of the impacts are onsite (e.g., 60 of 100 trees will be removed); in economic and social considerations, the linkages through employment, housing, etc. systems are considerably stronger. Will a new store serve new demand or put an existing store out of business? Will a proposed plant locate elsewhere in the community if denied its intended site or chose to locate in another county? Are vacancy rates low throughout the community suggesting a need for the new housing proposed? All of these questions illustrate the relevance of analyzing impacts in terms of the relevant economic systems.

3.01.2 PLANS ARE THE MOST IMPORTANT REFERENCE IN PROJECT ASSESSMENT

Given that the analysis of a project in isolation does not provide a context sufficiently broad to assess its impact, the analyst must not be confronted with the equally frustrating situation of having to reanalyze with each project the complex systems involved. Nor can the public or its representatives reevaluate all policies in considering each project. The appropriate process is for basic system planning and policy determination to take place in the context of plan preparation and for individual projects to be evaluated with reference to the plans. (This is not the total assessment, but probably the most important part.)

Three types of plans are relevant to project assessment: the general plan, neighborhood plans, and the plans for provision of public services. These plans provide the

broad context needed to assess impacts. They provide data necessary in the description of the impact. Probably most important, they convey considered and adopted policy.

In cases where the project conforms with the contents of the plan, this fact along with the basic reasons for the choice in the plan can be conveyed. In cases where the proposed project is contrary to one or more of the plans, that plan can be seen as one of the alternatives to which the project is compared.

3.01.3 "DOES IT PAY IT OWN WAY?" IS USUALLY A MISLEADING QUESTION

The first problem is that the question of paying its own way is not as simple as it appears to be. It can be interpreted in many ways. Regardless of whether average or actual incremental costs are used or whether rebates from higher government are included, the characteristics of the area and many other factors will affect the answer.

Secondly, even if everyone understands what is meant, the projections are usually of doubtful accuracy. Even with extensive (time and money) resources, it is seldom that the needed information can be abstracted from the data available.

It is termed misleading because determining whether development on a specific site "pays its own way" does not determine whether the municipality and special districts are fiscally better-off or not. To ascertain that would require including the consequences of all other development "associated" with the project. For example, a factory assumes the presence of workers who have homes, homes have shoppers, etc., until a full complement of urban development is involved.

Finally, "Does it pay its own way?" is not worth the trouble because it is of limited policy value. Is housing to be rejected because its inhabitants require social services? Can older development to be eschewed because its tax value is less? "Does it pay its own way?" has usually been used by municipalities that occupy a part of an economic area and wish to be selective in the development they allow. The associated corollary is that they assume that neighboring communities should take the land uses that are less "profitable" than average.

These remarks are not to say that fiscal impacts should be ignored. Indeed, they are the major focus of this report. But the purpose of the analysis should be the choice of alternatives that facilitates a better level of services delivered more efficiently along with an awareness of fiscal problems requiring attention.

3.01.4 FOCUS ON OPTIONS OPEN TO POLICYMAKERS AND THE PUBLIC

The choice of reasonable alternatives with which to compare the proposed plan or project is obviously one area in which viable options can be evaluated. Modifications which could mitigate undesirable consequences associated with the project offer another area for consideration.

Most of the offenses against this principle, however, arise from an analyst's preoccupation with the aspects in which he feels more competent than with the analysis of policy. In particular, most economic assessments err on the side of

too much quantification. Extensive tables of financial projections are seldom digested. Qualitative and "order of magnitude" characterizations are usually sufficient to illuminate the consequences of alternative choices. Furthermore, they are less likely to blur the focus of the choices available than more sophisticated and extensive quantification.

3.01.5

DELINATE IMPACTS ON SUBGROUPS

The correct approach to economic forecasting is usually to depict the entire situation and then to check for impacts that are distributed unevenly between different municipalities. For example, a new shopping center may raise sales tax rebates in one town and lower them in the adjacent town.

Similarly, the analyst should check each of the public service districts. A small district lacking adequate resources might be forced to absorb the brunt of the impact. On the other hand, it is also relevant when a positive impact is concentrated in a district relatively short on resources.

Finally, and probably most important, the analyst should check to see if the impact is distributed unevenly across population. It is particularly relevant to public policy when the costs or benefits are concentrated on social, economic, or age minorities.

3.01.6

SELECT TIME FRAME AND GEOGRAPHIC AREAS ADEQUATE FOR THE ANALYSIS

The time frame should be sufficiently long to include the major anticipated impacts. Common sense can be used to keep this principle from becoming onerous. First, the

situation may be such that only one, or a few, points in time need be analyzed (e.g., "1980, 1985, and 1990"). The analyst must be certain, however, that interim problems are not being masked by concentrating on one or a few future points. (As an example, in a project analysis situation, the long-term relationship between public service costs and tax base might be quite favorable but severe revenue shortfalls might occur during construction and build-out or rent-up period.) Timing factors should be considered in the analysis not only to offer a more comprehensive impact assessment, but to alert the analyst to severe impacts if the anticipated future does not, in fact, occur (e.g., if public investments for infrastructure are made, but the project fails).

Similarly, a proper time frame might be discontinuous. As an example, a five-year time horizon might be appropriate to analyze the initial impact of a major subdivision. The analysis might properly also include some time in the more distant future (e.g., the twentieth year) to consider economies anticipated at the outset which might, with the passage of time, become average or even higher than average. In most instances, the point of the "twentieth year analysis" would not be to provide highly accurate estimates of future costs of service but instead to offer a qualitative evaluation of future public service problems, as a comparison to short-term advantages.

Assuming that a situation requires a year-by-year estimate of costs and revenues, the analyst is faced with the need to interpret costs and revenues that may occur at different times in the future. A common analytical device in this

situation is to discount the stream of future costs and revenues to its "present value" by applying a discount to the time series.

The geographic area of impact is the area over which potential impacts are expected to occur. Impacts are generally area-wide rather than site specific. For housing projects, this might cover the service areas of the relevant public service agencies. For retail commercial projects, the designated trading area may be appropriate.

In selecting the geographic scope of analysis -- the services, revenues, and jurisdictions that will be included -- consideration should be given to including jurisdictions where impacts will be negative, or will not occur, because of the situation being analyzed. For example, an assessment of a land use decision involving a major regional shopping center in a particular jurisdiction should consider the impact of that decision on a neighboring jurisdiction where the sales tax revenues will not be accrued.

3.02 FISCAL IMPACT ASSESSMENT

The term "fiscal" analysis connotes the study of government expenditures and revenues as they affect and are affected by impact analysis situations. The term here is used interchangeably with "cost/revenue" analyses.

This subsection considers the following procedural steps in fiscal impact assessment, and where relevant, discusses technical problems and provides guidelines to the analyst:

1. Select appropriate costs and revenues for emphasis.
2. Let objective of assessment determine level of analytical detail.
3. For service plan and cost estimates:
 - a. Specify appropriate costs.
 - b. Estimate cost impact based on comparison of alternative futures.
 - c. Specify required service capacities (or for revenues, the revenue base).
 - d. Specify the quality of service.
4. For revenue estimates, apply existing tax rate or determine required tax rate.
5. Final cost/revenue impact result specifies servicing problems, and/or financing (cash flow) implications or relative tax burdens.

3.02.1 SELECT APPROPRIATE REVENUES AND SERVICES
FOR EMPHASIS

As in the case of economic impact assessments, the type of situation being analyzed will largely dictate the costs and revenues to be emphasized in the investigation.

The following tables suggest the relative effort required in preparing revenue and cost estimates in "typical" impact analysis situations. "Typical" should be qualified since the specifics of a project and the related public service agency characteristics will influence where effort should be directed.

TABLE 3.02-1

EFFORT REQUIRED IN PREPARING REVENUE
ESTIMATES IN TYPICAL IMPACT ANALYSIS SITUATIONS

IMPACT ANALYSIS SITUATION	User Charges	Development Fees	Property Taxes	Bonds	Property Transfer Tax	Non-Property Taxes:	. Business licenses	. Franchise taxes	. Transient lodging taxes	. Utility use taxes	. Other miscellaneous rev.	Sales Taxes	Vehicle Code Fines	Revenue Sharing - State:	. Gasoline	. Cigarettes	. Liquor	. Motor vehicle	. Other	Revenue Sharing - Federal
General Policies and Plans	2	2	1	1	3		3	3	3	2	3	1	3	2	3	3	3	3	2	2
Housing Development Projects	3	2	1	1	3		3	3	3	3	3	2	3	3	3	3	3	3	3	3
Industrial and Commercial (Base Employment) Facilities	3	2	1	2	3		2	2	3	3	3	1	3	2	3	3	3	3	2	3
Retail and Population Serving (Service Employment) Facilities	3	2	1	2	3		2	2	3	3	3	1	3	2	3	3	2	3	2	3
Regional Recreation Facilities and Growth in Recreation Based Economics	2	3	1	1	3		3	3		3	3	1	3	1	3	3	3	3	3	1
Transportation Service Improvements	1	3	2	1	3		3	3		3	3	3	1	1	1	3	3	1	3	1
Utility Service Improvements	1	1	2	1	3		3	3		1	3	3	3	3	3	3	3	3	3	1
Development Restrictions	3	1	1	2	3		3	3	3	1	3	2	3	2	3	3	3	3	3	2
Public Facilities	3	3	1	1	3		3	3	3	3	3	3	3	2	3	3	3	3	3	2

Legend: 1 - Greatest Effort
3 - Least Effort

TABLE 3.02-2

EFFORT REQUIRED IN PREPARING COST ESTIMATES
IN TYPICAL IMPACT ANALYSIS SITUATIONS

IMPACT ANALYSIS SITUATION	Education:															
	. Grades K-12	. Community colleges	Police	Fire	Transportation:	. Highways	. Local streets	. Mass transit	Water supply	Wastewater	Solid Waste	Rec., Open Space, Parks	Libraries	General government:	. Administration	. Plan., zoning, inspec.
General Policies and Plans	1	2	1	1		2	1	1	1	1	1	1	2		2	3
Housing Development Projects	1	2	1	1		2	1	2	2	2	2	1	2		2	3
Industrial and Commercial (Base Employment) Facilities	1	1	1	1		2	1	2	2	2	2	2	3		2	3
Retail and Population Serving (Service Employment) Facilities	1	1	1	1		3	1	2	2	2	2	1	3		2	3
Regional Recreation Facilities and Growth in Recreation Based Economics	1	2	1	1		2	1	2	2	2	2	3	3		1	2
Transportation Service Improvements	2	3	1	1		1	1	1	2	2	3	3	3		2	2
Utility Service Improvements	1	3	3	3		3	2	2	2	2	3	3	3		2	2
Development Restrictions	1	3	2	2		3	1	3	2	2	2	3	3		1	1
Public Facilities	2	2	2	1		3	1	3	2	2	2	3	3		1	3

Legend: 1 - Greatest Effort
3 - Least Effort

As part of this process, the analyst should consider any special service problems known to exist in the impact area or on the project site. For example, water availability, school overcrowding, or specific fire hazards may be issues in particular parts of the county and subject to detailed evaluation in project assessment. In treating the most significant issues of the area or site, the analyst should point out the policy choices available to decision-makers. For example, the analyst may find that a jurisdiction faces several options for expanding services to a project, e.g., building a new plant, contracting with another district to provide the service, forming a new district or a regional agency, a joint use arrangement, etc. These options should be explored. Similarly, the analyst may find new revenue sources, fees, or changes in tax policies that may improve the cost/revenue picture. Options and their implications deserve emphasis. The analyst should avoid applying a highly standardized evaluation procedure to all project assessments, since the site specific or particular aspects of a project's impact could easily be lost.

3.02.2 LET OBJECTIVE OF ASSESSMENT DETERMINE LEVEL OF DETAIL

The intended use or purposes of fiscal analysis will have direct bearing on the focus and appropriate level of detail. The main objectives or purposes of impact assessment include:

3.02.2.1 Identification and Disclosure of Adverse Fiscal Impacts

This is an important purpose of impact assessment; in order to "red flag" potential problems, the analysis need not be

detailed or exact. It needs to provide comparison of the relative magnitudes of impacts on service costs and to alert decision-makers to the need for a service plan and/or facility expansion.

3.02.2.2 Identification of Budetary Problems

The analysis can be used to identify deficits or surpluses that may result when services are expanded to meet the needs of development. Analysis must consider what will happen over time as some services may have to be provided before the full tax revenue potential of development is realized. Financing (debt) arrangements also need to be considered.

3.02.2.3 Identification of Efficiency in Resource Allocation

The purpose of the analysis may be to evaluate the efficiency of resource allocation between development alternatives. This analysis is more inclusive in that total resources are considered, not just the cost as reflected in public agency budgets (i.e., this might include water pipe installed by the developer, or consider factors such as the timing of the development). This is usually part of plan and policy assessment rather than at the project level.

3.02.3 FOR SERVICE PLAN AND COST ESTIMATES:

3.02.3.1 Specify the Appropriate Costs

While the most accurate cost for determining impact is the actual incremental cost or the acutal resources/money allocated to provide services to a proposed project, often the analyst

will not have the time or resources to quantify actual incremental costs of providing services to a development. For example, for water services, specific cost can only be determined through engineering designs as these costs are very specific to the site of the development. This results in the use of the methodology of average cost of providing existing services.

The analyst has to decide whether to use an incremental cost for both operating cost and capital cost associated with the project, or he has to use a cost based on average expenditures for existing services. Each choice has its own implications.

For example, if a proposed development will increase school enrollment, the analyst must decide the appropriate cost to charge to the development for providing school services for the new students. The average cost per existing student may seem high compared to the actual cost increases resulting from an additional student in a classroom. A few additional students certainly will not lower the quality of education. If new construction is required to house the incremental enrollment, when is the full cost of the facility charged to the development? It would depend on whether the facility is expected to be filled by other future development. The average capital cost per existing student might be more appropriate in attributing the full cost of the additional facility through the new development. In making this choice, the analyst should identify these implications so that the decision-makers can easily interpret the analysis.

The analyst should also be aware that average operating costs, particularly for fixed network systems like roads, water and wastewater will tend to overestimate actual operating costs for new parts of the system where maintenance requirements are less and underestimate them for the older parts of the system. Where a detailed assessment is not required, average or indicator costs can be used but should be explicitly qualified.

In general, the definition of costs appropriate to the situations that are the subject of this methodology is that of "explicit pecuniary costs" or the costs that actually are incurred by a public agency at the time that they are expended. Operating expenditures are included in the analysis in the amount and at the time that they would be accrued by the public agency making the expenditures.

(As a practical matter, the time of accrual and the time of actual cash payment can be considered to be equivalent.)

Where costs are analyzed for fiscal planning and budgeting purposes, capital expenditures should be counted at the time that they are actually paid. Similarly, if a fixed asset or other capital investment is paid for from general fund revenues or from reserves, then it is included in the analysis at the time of payment. If a capital investment is financed through bonded debt, then costs for principal and for interest on the bonds are included in the analysis at the time that they are actually paid to the bond holders.

Where capital expenditures are considered for the purpose of evaluating resource allocation, however, capital costs should be counted when the allocation occurs.

3.02.3.2

Estimate Cost Impact Based on Comparison of Alternative Futures

As defined, an "impact" assessment necessarily means comparison of two alternative futures. The alternative to a general plan may be "no plan," meaning a future land use situation determined by market factors and constrained only by zoning. The alternative to a proposed project may be "no project," but this is only appropriate where there is reasonable means to ensure it, e.g., when the land can be publically acquired and held vacant or where policy measures could restrict any development. Otherwise, some change in land characteristics must be anticipated under "no project," since land is not static.

The general plan for an area, any community plan, and utility service agency plans should play a role in the choice of a relevant project alternative(s). If the proposed project is contrary to one or more of the plans, the plan's assumed land uses are normally an important alternative. Furthermore, the plans are usually essential in projecting the future during which the project would have an impact.

Some generalizations may be made about which specific cost impacts are most relevant to a public land use decision. The word, "project" also applies to plans and policies.

- . If the service capacity appears adequate for the alternatives being considered (e.g., a very large water supply), then there is no cost impact (except perhaps marginal operating cost) attributable to the new development. This is relevant if \$10 million were expended in the last year for a plant to provide the services to anticipated growth (expecially if this project is the anticipated growth, though approval of the project will not "cause" the cost impact).

- . Another typical situation occurs when the analyst finds the service being investigated cannot accommodate the demands of the project, but can for the alternative that is being evaluated. This may be because of other less demanding land uses included in the "project alternative." (Such land uses may be included either because they are regarded as inevitable or because they are "induced" by the project.) It is immaterial whether or not the specific project being evaluated or other projects that must be anticipated if the project in fact takes place is the one that, in fact, "breaks the camel's back" and requires a service extension. Instead, all development included in the project and its alternative are evaluated simultaneously. The result is the estimated cost impact of the project. A complexity is introduced if a significant part of the development occurs far in the future. In this case, the development anticipated in the near future has the extra impact of necessitating that the expenditure be made at an earlier point in time.
- . The third situation occurs where the project alternative will not require expenditures to improve service capacity, but the land uses included in the "no-project" alternative would require service extensions. Such a situation might occur, for example, when the "project" being evaluated was, in fact, a growth management policy. The procedure of analysis is identical to that for the project alternative exceeding capacity, but in this case, savings rather than costs is the relevant impact.

- . A final situation occurs where inadequate future capacity exists for both the project and no-project alternatives. In this case, service expansions will be required whether or not the project alternative actually occurs. Hence, costs are not affected by choosing the project alternative so there is no cost impact.

3.02.3.3 Specify Required Service Capacities or Revenue Base¹

A requirement for the public service cost or revenue estimates is that first a service level or capacity requirement be stated (or in the case of revenues, the revenue base be estimated) at one or more points in the future. Then an estimate must be made of the cost or revenue appropriate to that capacity or revenue base.

3.02.3.4 Specify the Quality of Service¹

To identify actual incremental cost of development, each resident must continue to receive the same level and quality of services; otherwise, comparison of incremental costs and revenues attributed to the development would not be valid. To assume a reduction in overall level and quality of service implies the estimated increase in costs are, in effect, higher than the estimated increase in expenditures would indicate. In contrast, for a public service that is being upgraded

¹For a full discussion of cost estimating problems associated with changes both in service capacity and quality of service, see Economic Practices Manual, Section 9.

in level or quality of service, estimates of the cost for a new development would tend to be overestimated. On such a basis, the validity of cost and revenue comparisons may be questioned on the ground that a different criterion is used for new developments than for existing residents. For example, if tax revenues at present are unable to provide the higher level of services, specifying the new standards for a development suggests erroneously that the new development would be deficient if it were unable to provide the revenues to support the new level of service.

3.02.4 FOR REVENUE ESTIMATES, APPLY EXISTING TAX
RATE OR DETERMINE REQUIRED TAX RATE

The procedure in revenue estimating will depend on the revenue source and tax or fee structure. In the case of sales taxes, fees and other charges, the rates are fixed. The question of applicable rates arises with property taxes.

When the analyst wishes to assess tax incidence, or who will pay for the incremental service costs, he would apply the existing tax rates. Under existing tax rates, a revenue shortfall implies that to maintain the existing level and quality of service for all residents, the existing residents will have to be taxed at a higher rate to generate the needed additional revenue. This means that the new development will pass some of the costs of providing services to its residents on to other residents in the county. Revenue surpluses, of course, mean that the development more than pays its own way.

When the analyst wishes to determine the property taxes necessary to support the incremental service costs, the rate is divided based on the plan or project's assessed valuation times whatever rate is required to cover the incremental service costs. It should be remembered that under S.B. 90 property tax rates are limited; and when the divided rates exceed the allowable rates, service plans must alternatively be adjusted downward, other revenue sources provided, or voter approval of a tax override must be secured.

3.02.5 FINAL COST/REVENUE CALCULATIONS SPECIFY IMPACT
IN TERMS OF SERVICING PROBLEMS, PUBLIC FINANCING
(CASH FLOW) IMPLICATIONS AND/OR COMPARATIVE
TAX BURDENS

Except where tax burden is the objective, the assessment procedure should separately identify the plan or project revenue impact and the cost impact of each service investigated.

The purpose of separately expressing revenue and cost impacts and not comparing the totals to determine if a project pays its own way is to avoid misleading "bottom line" cost/revenue conclusions. Where costs all represent actual incremental costs, summation is called for and can be compared against total revenues. Where some costs represent average costs and others actual costs, summation is not appropriate. Since service jurisdictions in practice function independently of each other fiscally and operationally and frequently encompass different service areas, any budget "surpluses" in one agency generally would not be transferable to another service anyway. An estimated "surplus" in park revenue expenses would not be transferable to offset a school district's "deficit."

While throughout this report we stress that the assessment of a project should not be to answer whether it is fiscally self-supporting, i.e., it pays its own way, there is frequently a need to identify the potential tax burden of a project. What will it cost the taxpayer? In that case, the analyst must determine the "bottom line" in terms of estimated tax rates, based on projected revenues and costs (which may or may not be comparable). The caution against a bottom line conclusion applies here, in that the bottom line may show a "wash" or a balance between costs and revenues, which obscures particular service agency problems. Since jurisdictions will have to address service within the framework of their own policies and financing capabilities, these issues should not be blanketed.

Hence, as a matter of procedure, the analyst should:

- . Estimate the cost impact of each relevant service.
- . Estimate the significant revenues.
- . Unless taxpayer burden is to be determined, do not sum revenues then sum service costs and compare the two.
- . When determination of taxpayer burden is the objective of analysis, qualify bottom line conclusions by identifying the type of cost estimates by service (e.g., average cost, or actual incremental cost), and particular servicing and financing problems by jurisdiction.

SECTION 4

4.00 PUBLIC SERVICES AND THEIR COSTS

4.01 INTRODUCTION

This first section of the methodologies treats public services and their costs. The order of presentation is:

Section

4.02	Elementary and Secondary Education
4.03	Police Protection
4.04	Fire Protection
4.05	Roads
4.06	Parks and Recreation
4.07	Water
4.08	Wastewater
4.09	Storm Drainage
4.10	Library
4.11	General Government

THRESHOLD

A FULL IMPACT ASSESSMENT IS WARRANTED WHEN THE SITUATION ALONG WITH ANTICIPATED FUTURE ENROLLMENT IN A SCHOOL DISTRICT INDICATES THAT THE ELEMENTARY SCHOOL(S) IN THE PROJECT AREA OR THE HIGH SCHOOL DISTRICT WILL FACE CAPACITY PROBLEMS. A DETAILED ASSESSMENT IS NOT WARRANTED IN OTHER CASES BECAUSE NO ADVERSE COST IMPACTS ARE LIKELY. TO THE CONTRARY, IN MOST SACRAMENTO COUNTY SCHOOL DISTRICTS, WITH THE EXCEPTION OF ELK GROVE, ENROLLMENT IS DECLINING AND ADDITIONAL STUDENTS WILL USUALLY MEAN WELCOME ADDITIONAL REVENUES PER AVERAGE DAILY ATTENDANCE (ADA) AND POSSIBLY AN IMPROVED REVENUE/ADA:OPERATING COST/ADA RATIO.

GIVEN THE FINANCING REGULATIONS OF SENATE BILL 90 (S.B. 90), FULL ASSESSMENT REQUIRES ESTIMATING BOTH THE REVENUES AND EXPENSES ASSOCIATED WITH ADDITIONAL ENROLLMENT. THE METHODOLOGY BELOW OUTLINES THE STEPS IN CALCULATING THE REVENUE LIMIT WHICH LARGELY DETERMINES THE GENERAL PURPOSE SCHOOL DISTRICT TAX RATE. THE EXPENSES MUST BE CALCULATED AND INCLUDED IN THE INCREMENTAL CHANGES IN OPERATING COSTS ASSOCIATED WITH ADDITIONAL ENROLLMENT (E.G., BUSING, PORTABLE UNITS, AND OTHER "EXTRA" COSTS), AS WELL AS CAPITAL COSTS IF SCHOOL FACILITY EXPANSION IS PLANNED.

IF NO CAPACITY ISSUE IS ANTICIPATED AT ANY TIME, A DETAILED FISCAL IMPACT ASSESSMENT IS NOT REQUIRED. QUANTITATIVE AND QUALITATIVE DESCRIPTIONS OF THE MAJOR EFFECTS ON SCHOOL DISTRICT(S) UNDER THE PROJECT AND ITS ALTERNATIVE WOULD BE APPROPRIATE AND SHOULD INCLUDE:

- . CHANGES IN TEACHER/PUPIL RATIOS.
- . CHANGES IN ASSESSED VALUATION PER ADA AND IMPLICATIONS FOR STATE AID AND LOCALLY (PROPERTY TAX) GENERATED REVENUES.

- SCHOOL DISTRICT OR OTHER OFFICIAL COMMENT ON PROBABLE EFFECT OF NEW STUDENTS ON DISTRICT'S RATIO OF OPERATING COSTS/ADA:REVENUES/ADA.

4.02.2 INTRODUCTION

Section 4.02.5 below presents the methodology for estimating school district revenues and costs, including both operating and capital costs. This methodology is preceded by a general discussion of Sacramento school districts and the current school financing structure legislated by S.B. 90.

Elementary and secondary education refers to the public education programs and related services (e.g, cafeteria, health services) provided by school districts throughout California. Public education is a state-mandated local government service that must provide education in grades 1 through 12 for all children in California. All land areas in Sacramento County are located in one or in a combination of school districts that provide education at these grade levels, and all localities have access to elementary and secondary education in the grades kindergarten through 12th grade. A list of the school districts in Sacramento County with their estimated average daily attendance for 1974-75 is given in Table 4.02-1.

Expenditures for elementary and secondary education are normally the largest expenditure of all local government services in any jurisdiction. In addition, local support for public schools traditionally has been drawn from the property tax base so that educational services are both a large portion of the total local government expenditures and make a large claim on the property tax. The sources of revenue for elementary and secondary education in 1972/73 are presented in Table 4.02-2.

TABLE 4.02-1

SACRAMENTO COUNTY SCHOOL DISTRICTS, GRADE SPANS,
AVERAGE DAILY ATTENDANCE, 1974-75

<u>Elementary School Districts</u>	<u>Grade Span</u>	<u>Est. ADA 1974-75</u>
Arcohe	K-8	264
Center	K-8	1,090
Del Paso	K-6	1,685
Elverta	K-6	264
Galt	K-8	1,255
Natomas	K-8	112
North Sacramento	K-6	4,235
Rio Linda	K-6	8,200
Robla	K-6	903
Sub-Total		18,008
<u>High School Districts</u>		
Galt	9-12	896
Grant	7-12	14,410
Sub-Total		15,306
<u>Unified School Districts</u>		
Elk Grove	K-12	11,323
Folsom Cordova	K-12	12,547
River Delta	K-12	2,430
Sacramento	K-12	50,646
San Juan	K-12	54,839
Sub-Total		131,785
TOTAL		165,099

Source: Sacramento County Office of Education, 1974.

TABLE 4.02-2

SOURCES OF REVENUE FOR PUBLIC EDUCATION

SACRAMENTO COUNTY, 1973-74

	Elementary		High School		Unified	
	(\$000)	(%)	(\$000)	(%)	(\$000)	(%)
Federal Aid ¹	2,213.3	9	1,408.2	8	9,785.4	7
Combined Federal and State Aid ²	522.3	2	0	0	389.0	
State ³	14,385.4	62	10,887.0	65	78,048.4	54
County ⁴	449.5	2	419.8	3	4,982.1	3
Local ⁵	5,810.0	25	3,923.1	24	52,352.6	36
Total	23,380.0	100	16,638.1	100	145,557.5	100

¹This includes the Elementary and Secondary Education Act of 1965 (P.L. 89-10), School Assistance for Federal Impacted Areas (P.L. 81-874), Economic Opportunity Act of 1974 (P.L. 880452), Manpower Development and Training Act of 1968 (P.L. 87-415), Vocational Education Act of 1968 (P.L. 88-210), National Defense Act of 1958 (P.L. 85-864), Higher Education Facilities Act, Forest Reserve Funds, and other sources.

²Includes Vocational Education Aid, Pre-School Aid and other aid.

³Includes School Fund Apportionments, Business Investments Tax Relief, Homeowners Property Tax Relief, other tax relief, and other aid.

⁴Includes Junior College Tax, Equalization Aid Offset Tax, High School Tuition Tax, and other revenue.

⁵Includes District taxes, sales and rentals, and other revenue.

Source: California, Controller's Office, Financial Transactions Concerning School Districts of California, fiscal year 1973-74.

Because of the provisions of the Property Tax Relief Act of 1972 (S.B. 90), expenditures for elementary and secondary education are now closely linked to sources of revenue so that expenditures are effectively controlled by the amount of revenues that can be made available. S.B. 90 presents an interim financing system for elementary and secondary education until the Legislature adopts a permanent financing plan that reflects the findings of the Serrano v. Priest court decision.

The decision altered a financing system that depended at least in part on the wealth or assessed valuation of individual districts which led to a situation where two districts, each levying the same tax rate, were able to generate vastly different amounts of revenue per ADA. For the purposes of impact assessment, the analyst should assume that the present financing system imposed by S.B. 90 will continue indefinitely.

Under S.B. 90, a limit is imposed on the general purpose revenues that can be collected per ADA.¹ Thus, an increase in the wealth or assessed value of a district per ADA does not permit the district to spend more per pupil: the tax rate would be lowered but the dollars per student would remain the same.

The current structure of educational finance, together with a definition of terms used in cost/revenue calculations, are summarized here as background to conducting the fiscal analysis.

1

"Per ADA" is used in the discussion interchangeably with per unit of ADA. Revenue or expenditure "per ADA" actually means "per unit of ADA."

Traditionally, a state mandate has guaranteed an annual "foundation program" amount per ADA that each school child in California was entitled to have spent on his or her behalf. This foundation program minimum was financed by a combination of a basic state grant per ADA, a local levy that depended on the tax base and assessed value per ADA in the local jurisdiction, and a program of "equalization" that would be provided by the state general fund to local school districts whose tax base was not large enough so that the basic state aid plus a "computational" tax rate would together guarantee each student his or her minimum foundation program. The workings of the traditional school finance program are shown in Figure 4.02-3 where fiscal year 1973/74 funds' program is used as an example.

Historically, the "computational" tax rate was strictly a device to determine the revenue that could be raised locally at that tax rate if the local district chose to levy it. As shown in the example, however, the combination of the state basic aid and the district's tax base might produce more revenues than the guaranteed foundation program required. Traditionally, a local district was free to tax itself at an even higher rate if it wished to enrich its program. S.B. 90 has imposed a fundamental change to this presumption. It imposes a limit on the general purpose revenues that can be collected per student rather than imposing a limit on the tax rate that can be levied. Thus, an increase in the wealth or assessed value of a district per ADA does not permit the district to spend more per pupil. The tax rate would be lowered, but the dollars per student would remain the same.

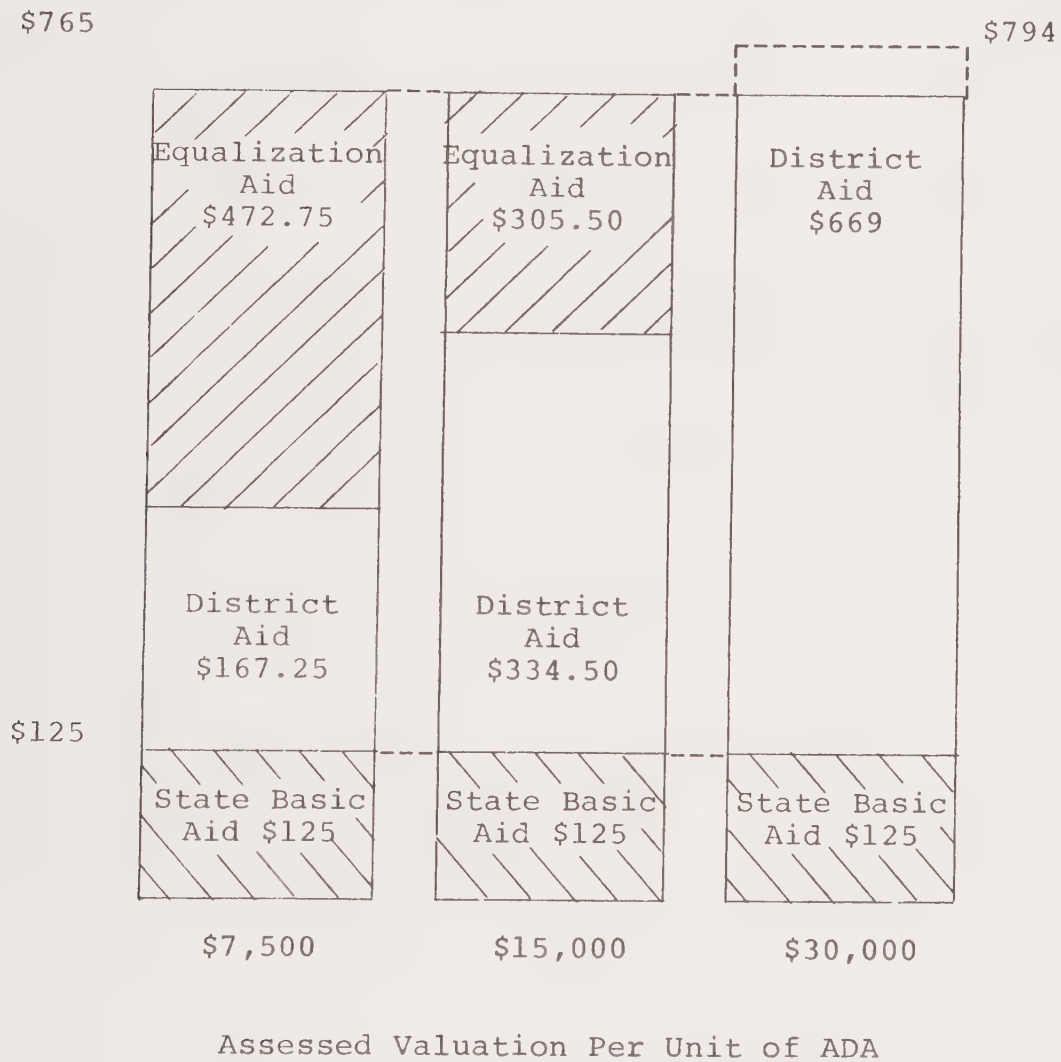
There is a provision in S.B. 90 where the foundation program amount each year can be increased by an "inflation adjustment."

FIGURE 4.02-3

EXAMPLE OF CALIFORNIA'S HISTORICAL
APPROACH TO SCHOOL FINANCE

(Using Fiscal Year 1973-74 as an Example)

Guaranteed Foundation Program = \$765
Computational Tax Rate = \$2.23



However, the annual amount of inflation adjustment is limited by the terms of S.B. 90, and, in fact, each year the specific dollar limit of maximum adjustment is jointly determined by the Department of Education and the Department of Finance. The portion of the maximum inflation adjustment that may be utilized by any district is a function of the previous year's revenue limit. The terms of S.B. 90 were first applied in fiscal year 1973-74 and the revenue limit in that year was determined as a function of assessed valuation, prior tax rates, and prior taxing practice in the district. For purposes of future estimates, however, the 1973-74 revenue limit can be taken as a given and the revenue limit in each future year becomes a function of the previous year's revenue limit and of the foundation program that is jointly adopted by the Department of Education and the Department of Finance.

4.02.4 DEFINITION OF TERMS USED IN S.B. 90 REVENUE/COST CALCULATIONS

ADA: Average daily attendance. Usually a fraction under total enrollment. The Sacramento districts' ADA is currently about 98.5% of total enrollment although it varies from district to district.

Areawide Aid: An equalizing measure that applies only where more than one elementary school district is located within a high school district. For elementary levels, a computational tax rate of \$1.00/\$100 modified assessed value is used and for high school levels, the rate is .80/\$100 modified assessed value.

Basic (State) Aid: All districts in California are constitutionally guaranteed \$125 of support per ADA. The amount is the same for elementary and high school levels in all districts in the state.

District (Local) Aid: Raised from local property tax levies. The computational rate (fixed and not subject to annual change) for elementary level is \$1.23/\$100 modified assessed valuation; for high school level, .84/\$100; and \$2.07/\$100 for unified school districts.

Equalization (State) Aid: Provided by the state to local districts to guarantee a minimum level of expenditures per ADA for all districts. In brief, equalization aid is determined by subtracting the sum of basic state aid (\$125 per ADA) plus district and areawide aid (calculated as specified computational tax rates multiplied by assessed value) from the "foundation program" amount (i.e., the suggested minimum expenditure per student). Equalization aid is a means to assisting districts with low assessed valuations per ADA to reach the foundation program level of support.

Foundation Program: Defines for computational purposes a minimum acceptable level of expenditure per ADA for all districts in the state. Different minimum amounts are set for elementary and high school levels. The 1975-76 and estimated 1976-77 maximum foundation program amounts are shown in the text table below.

Revenue Limit: Under S.B. 90, school districts are constrained by an annual revenue limit per ADA. The computations required to estimate both the district's revenue limit and tax rate are provided in the revenue discussion later in this section.

FOUNDATION PROGRAM AMOUNTS IN SELECTED SIZE DISTRICTS

	<u>1975-76</u> (\$ per ADA)	<u>1976-77</u> (\$ per ADA)
Elementary		
Districts under 900 ADA	\$ 878	\$ 944
Districts over 901 ADA	888	954
High Schools		
Districts under 300 ADA	1,063	1,129
Districts over 301 ADA	1,073	1,139
Unification Zones	20	20

Note: Amounts represent maximum estimated levels.

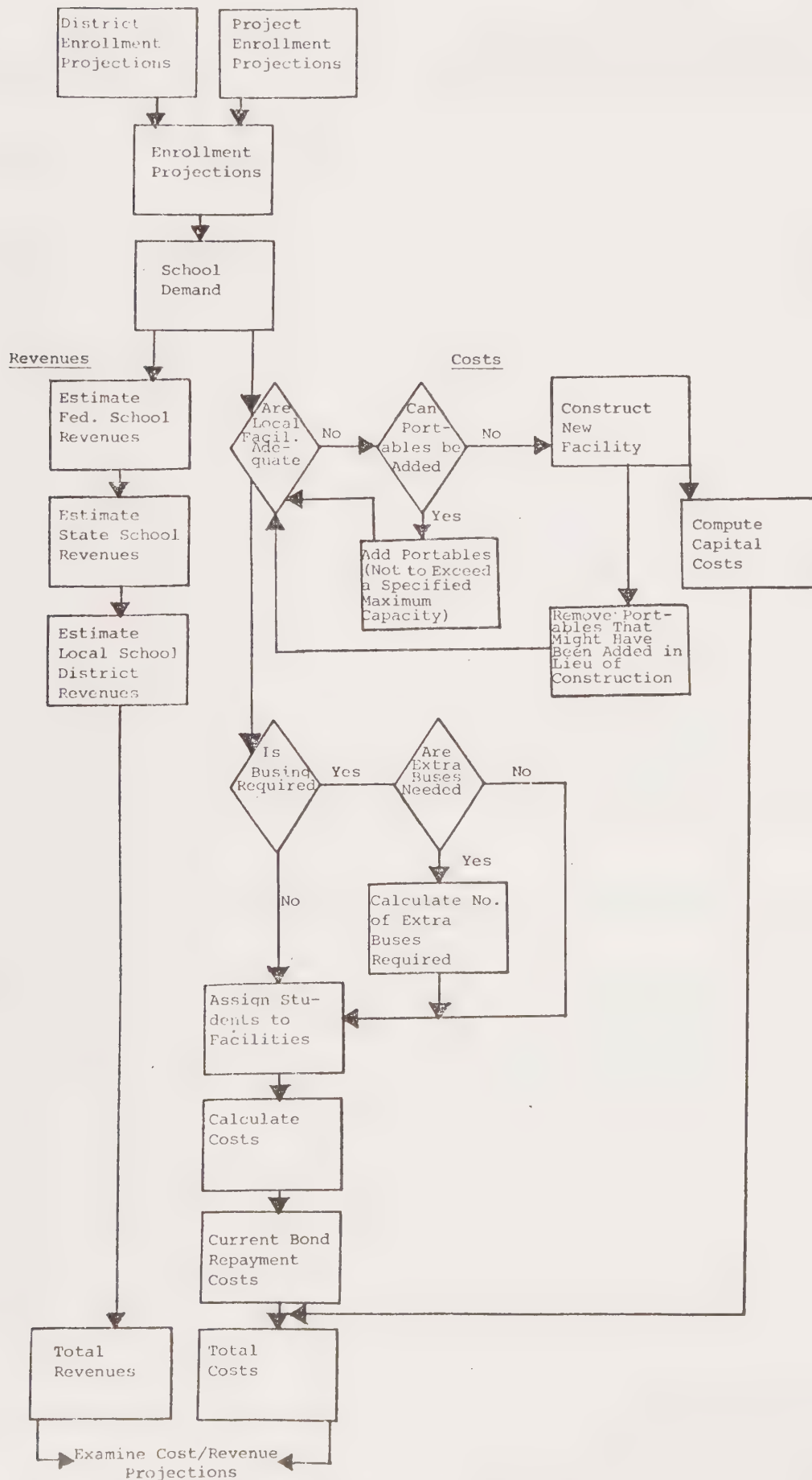
4.02.5 ANALYTICAL FRAMEWORK

This section covers the basic procedures and calculations required to estimate school enrollment, revenues, and costs. Figure 4.02-4 shows the sequence of steps in the fiscal analysis procedure which are then explained in the text.

4.02.5.1 School Enrollment and Average Daily Attendance

Experience in a number of studies indicates that the single most critical estimate in the fiscal portion of an economic impact assessment is that of future elementary and secondary school enrollment. Since expenditures for education are such a large percentage of total local government expenditures in any jurisdiction, and since provision of educational services is highly labor intensive, the total cost of education is quite proportional to enrollment. Thus, particular care must be given in estimating elementary and secondary school enrollment in the jurisdictions that are affected by an impact analysis situation.

FIGURE 4.02-4
EDUCATION FISCAL ANALYSIS PROCEDURE



To estimate school enrollment for a given project, in most instances the analyst can employ multipliers of pupils per dwelling unit (by type). These multipliers may be available from the school district. Factors for Elk Grove and San Juan Unified School Districts are shown in Table 4.02-5. Other methods for estimating enrollment for a given project and in a school district are presented in the Economic Practices Manual.

The longest range for reasonable school enrollment projection is about 10 years. The analyst may find it most useful to make long-range projections on the basis of vacant land conversion assumptions from which area residential development can be projected. At this time, the San Juan Unified School District is developing a vacant land conversion model for long-range enrollment projections. That methodology may be applicable to other school districts and should be consulted by the analyst when it is available.

4.02.5.2 Revenue Calculations

School revenues are derived from three principal sources: federal, state, and local. Formulas given below for calculating revenues are from a cost/revenue impact system developed by the Association of Bay Area Governments (ABAG).¹ The formulas represent simplified calculations which do not give results exact to the dollar, but are accurate enough for the purposes of fiscal assessment.

1

Association of Bay Area Governments, Cost/Revenue Impact System (CRIS), Interim Report, City of Fairfield, Solano County, February 25, 1975.

TABLE 4.02-5

SCHOOL ENROLLMENT MULTIPLIERS BY DWELLING UNIT TYPE,
ELK GROVE AND SAN JUAN UNIFIED SCHOOL DISTRICTS, MARCH, 1975

<u>Dwelling Unit Type</u>	Elk Grove No. of Children of <u>Age Groups 0-17</u>	San Juan Average No. Pupils / du		
	(<u>All Levels</u>)	(<u>Elem.</u>)	(<u>Int.</u>)	(<u>H.S.</u>)
Single family	1.517	0.60	0.20	0.15
Duplex	0.867	0.25	0.10	0.08
Triplex	0.750	N.A.	N.A.	N.A.
Fourplex	0.359	N.A.	N.A.	N.A.
Condominium	N.A.	0.25	0.05	0.02
Multi-family/apt	0.454	0.30	0.05	0.02
Mobile home	0.287	N.A.	N.A.	N.A.

Sources: Elk Grove Unified School District Master Plan and
San Juan Unified School District.

N.A. means not available.

Federal Revenues

Federal revenues are estimated by applying a per unit of ADA factor times ADA as shown:

$$FRP_n = (PF) (ADA_p)$$

$$FRR_n = (PF) (ADA_r)$$

FRP = federal revenues for project

FRR = federal revenues, rest of district

P = project

PF = per ADA revenues, federal government

n = projected years into the future

r = rest of district

Table 4.02-6 presents revenues by source per ADA in each school district for the years 1970-1974. The federal support per ADA varies somewhat annually; and increases in ADA does not necessarily lead to an increase in federal revenues. While an estimate for future federal support usually can be extrapolated from past trends, the analyst should consult the school district on estimating future federal support per ADA.

State and Local Revenues

The calculations for basic aid and equalization aid include using foundation program amounts and calculating areawide and district aid which are local revenues. The following formulas can be applied to elementary school, high school and unified school districts, as shown.

1. Foundation Program (FP) = Foundation support level X ADA

Foundation program amounts differ for elementary and high school levels. For unified districts, add \$20 to the elementary and high school amounts. See text table p. 61.

TABLE 4.02-6

SCHOOL REVENUES PER ADA FROM FEDERAL, STATE,
AND LOCAL SOURCES, BY SCHOOL DISTRICT, 1970-1974

<u>School District</u>	<u>FY 1970-71</u>	<u>FY 1971-72</u>	<u>FY 1972-73</u>	<u>FY 1973-74</u>
Arcohe Union Elem.				
Federal Aid (F)	\$ 8	\$ 16	\$ 3	\$ 8
State Aid (S)	259	248	288	445
Local & Others (L&O)	378	395	421	611
Center Joint Elem.				
F	221	243	253	381
S	445	357	376	937
L&O	139	141	139	300
Del Paso Hts. Elem				
F	340	341	233	278
S	549	559	536	747
L&O	149	223	176	167
Elverta Joint Union				
F	72	122	48	75
S	421	423	502	770
L&O	260	299	385	465
Galt Joint Elem.				
F	42	43	42	72
S	320	315	290	342
L&O	255	279	302	265
Natomas Union Elem.				
F	-	-	-	-
S	360	351	369	306
L&O	1,317	1,483	1,790	2,500
North Sacto. Elem.				
F	105	122	127	117
S	411	398	449	763
L&O	263	343	422	480
Rio Linda Union Elem.				
F	89	105	100	110
S	488	477	579	768
L&O	175	197	246	277

TABLE 4.02-6, Continued

<u>School District</u>	<u>FY</u> <u>1970-71</u>	<u>FY</u> <u>1971-72</u>	<u>FY</u> <u>1972-73</u>	<u>FY</u> <u>1973-74</u>
Robla Elem.				
F	\$ 256	\$ 297	\$ 298	\$ 335
S	534	547	616	904
L&O	197	240	263	279
Galt Joint Union HSD				
F	22	25	23	18
S	365	377	380	583
L&O	628	688	821	814
Grant Joint Union HSD				
F	76	80	85	94
S	425	408	457	705
L&O	327	356	391	337
Elk Grove USD				
F	38	45	52	46
S	357	368	386	555
L&O	372	441	441	398
Folsom Cordova USD				
F	108	115	101	120
S	427	426	480	684
L&O	220	241	294	220
River Delta USD				
F	21	29	484	133
S	180	200	243	294
L&O	894	1,121	1,279	1,357
Sacramento USD				
F	65	93	92	104
S	347	334	361	575
L&O	395	467	526	488
San Juan USD				
F	44	47	46	45
S	341	384	402	603
L&O	335	386	429	370

Source: California State Department of Education, Annual Budget Reports.

$$2. \text{ Basic Aid (BA)} = (125) (\text{ADA}_n)$$

Basic Aid is the same for all levels.

$$3. \text{ Areawide Aid (AA)} = \text{Modified A.V. of district X} \begin{array}{l} 1.00 \text{ for elementary} \\ \text{levels} \\ \text{and} \\ .80 \text{ for high school} \\ \text{levels} \end{array}$$

Calculate the total areawide aid for each district in each high school area, using the above rates. Areawide does not apply to unified school districts.

- 4A. If total BA+AA $\geq$ total FP, all districts in the area are "basic aid" and receive no equalization aid.

Then, calculate each district's Areawide Aid as the difference between the total Foundation Program and \$125 times the prior year's fiscal ADA.

- 4B. If total BA+AA $<$ total FP, distribute total Areawide Aid to each district in proportion to the district's share of total Foundation Program for all districts in the area.

Then, calculate the district aid for each district.

$$\text{District Aid} = \text{Modified A.V.} \times \begin{array}{l} 1.23 \text{ for elementary levels} \\ \text{and} \\ .83 \text{ for high school levels} \end{array}$$

. Add BA + DA

. If BA + DA $\geq$ FP, there is no equalization aid (EA)

. If BA + DA $<$ FP, the difference is EA.

5. Add district's Basic Aid and Equalization Aid.
6. Calculate the ratio of the previous year's revenue base per ADA, divided by the current year's foundation amount/ADA.
7. Calculate the portion of the inflation adjustment that the district is permitted to add to its prior year's revenue base per ADA (equal to the above ratio multiplied by the total inflation adjustment). The analyst will need to know the inflation adjustment and is advised to consult the Sacramento County Office of Education, Mr. John Mulligan, for this figure or for assistance in estimating it.
8. Calculate the preliminary estimate of the total revenue limit. The following rules of thumb may be used:
 - . Where the district is at its revenue limit, it receives the foundation program level of support per ADA.
 - . Where the district has not reached its revenue limit, the revenue limit is inflated at 15% per year until it reaches the foundation program minimum.
 - . Where the district's revenue limit exceeds the foundation program minimum, the calculation is more complicated. The revenue limit is then adjusted by taking the prior year's foundation program minimum divided by the prior year's revenue limit, times the allowable rate of inflation. The inflation rate is announced annually by the state; and if that rate has not yet been determined, only a "guesstimate" is possible.

Further adjustments may be made to this preliminary estimate depending on the district's qualifying for increases due to declining enrollment, voted revenue limit adjustments, junior high tuition, etc. Again the analyst should consult the County Office of Education, or the districts impacted.

9. Calculate the maximum general purpose tax rate by taking the adjusted revenue limit minus estimated income from the unsecured (property tax) roll and income from prior year taxes; divide the result by the net actual secured (property tax) roll and multiply this quotient by 100. Or, in formula terms:

. Adj. RL - Unsecured toll + prior year's taxes =
local tax required from secured roll

.
$$\frac{\text{Local tax received from secured roll}}{\text{net actual secured roll}} \times 100 =$$

maximum general purpose tax rate.

For local revenues, in addition to the general purpose school tax rate, the analyst must calculate the property tax bond rate which is a function of outstanding school bonded indebtedness and any new indebtedness. The County Auditor will be the best source of information on existing debt retirement schedules and related property tax (bond) rates. It should be mentioned that while existing debt is relevant to fiscal forecasting, it is not relevant to impact assessment (i.e., existing debt is the same under all project alternatives). New debt for new capital investment is an item relevant to project impact assessment. The requirements for new debt will equal the costs of capital expansion, improvement, acquisition, and other capital items minus available funds from

other sources (e.g., federal funds). The method for determining capital costs is summarized below under Expenses.

Thus, the analyst will combine the existing debt repayment schedules with any new debt repayment schedule to determine the total annual debt service cost for each relevant year and divide that total by the district's projected assessed valuation to determine property tax/bond rates.

For state revenues, in addition to basic aid and equalization aid, there are categorical state programs for:

- Exceptional Children
- Regular Transportation
- Educationally Handicapped
- County School Service Fund
- Allowance for Mentally Gifted
- Miller-Unruh Reading Act

Categorical programs for education have become increasingly important to the operation of school districts -- particularly major urban school districts -- because they represent a source of financing that is not regulated by S.B. 90 and that is available for special programs. However, in general, the impact analysis situation described here will not influence, or be influenced by, categorical education programs. They are not described further in this Manual but, if they appear applicable, their terms and impacts should be reviewed with the County Superintendent of Schools or with the appropriate officials in the individual school district.

For the purposes of fiscal analyses, other state revenues (categorical programs) may be summarized in one equation based on

$$OSR = (P_s) (ADA)$$

OSR = other (minus basic and equalization aid) state revenues

P_s = average revenues per ADA for categorical programs

TABLE 4.02-7

SCHOOL DISTRICT REVENUE LIMIT PER ADA AND TAX RATES
SACRAMENTO COUNTY, 1974-75

District	S.B. 90 - Revenue Limit			Total Levied Tax Rate
	Revenue Limit Per ADA	Maximum Tax Rate	Levied Tax Rate	
Arcohe Union	815.00	1.078	1.078	2.412 ¹
Center Joint	825.00	0.518	--	1.090
Del Paso Heights	845.00	2.673	2.673	5.832 ²
Elk Grove Unified ³	888.60	3.900	3.900	4.434
Elverta Joint	815.00	1.783	1.783	3.027 ²
Folsom Cordova Unified ³	882.38	3.648	2.611	3.023
Galt Joint Union Elem.	695.83	0.146	0.146	1.452 ¹
Galt Joint Union High ³	1,172.82	1.849	1.849	2.102
Grant Joint Union High ³	588.17	1.641	1.641	1.813
Los Rios Community College	1,048.20	0.554	0.512	0.766
Natomas Union	2,138.28	1.317	1.317	2.486 ²
North Sacramento	845.00	1.800	1.800	3.005 ²
Rio Linda Union	825.00	1.771	1.771	3.051 ²
River Delta Unified	1,431.26	3.576	3.576	3.776
Robla	840.64	2.341	2.341	3.973 ²
Sacramento City Unified ³	907.03	3.876	3.876	4.365
San Juan Unified	903.48	3.926	3.926	4.519

¹Includes areawide tax rate of \$1.113 for Galt High School District.

²Includes areawide tax rate of \$1.119 for Grant High School District.

³Indicates districts which receive Necessary Small School Apportionments.

Source: Sacramento County Office of Education, Business Service Department, March 25, 1975.

4.02.5.3

Expenses

As mentioned above, the overriding effect of S.B. 90 financing is that general fund expenditures are tied to annual revenue limits. Each year's revenues are partially a function of the previous year's revenue base per ADA, and of various adjustments for inflation, enrollment trends, and special conditions. Essentially, after the revenue limit has been calculated and other applicable revenues (categorical federal and state programs, etc.) are added, expenditures are set equal to revenues. The exception to this rule are districts not at their revenue limit, for which a separate expenditure estimate needs to be prepared.

For initial estimating purposes, the analyst should follow the above revenues = costs guideline and then consider the historic operating costs/ADA within the district to investigate potential cost squeezes. Particularly in districts with declining enrollment where personnel costs are not totally flexible due to tenure agreements, etc., operating costs will tend to decline at a lower rate than revenue base decreases. These "real" budgetary problems must be called out in the analysis.

For purposes of separately estimating operating costs (not as a function of the revenue base) to identify "real" operating and budget issues, the analyst should follow the sequence of steps shown in Figure 4.02-2 above, and explained below.

- . Determine if local school facilities can accommodate projected enrollment.

- . If yes, calculate operating costs/ADA based on adjustment of the previous year's operating costs.

$$OC_i = (ACP_i) (ADA_i)$$

ACP = average operating cost per pupil. These may be taken as equivalent to current cost of education/pupil summarized in Table 4.02-8 below.

i = type of school, 1, 2 or 3 for elementary, intermediate, high school, respectively.

OC = operating cost for the school facility.

- . If no, in consultation with school officials, consider possibility of adding portables and busing students.
- . For transportation costs, calculate:

- . Purchase cost of new buses:

$$BC = (NBUS) (CBUS)$$

BC = Bus costs

NBUS= Number of buses

CBUS= Cost per bus (\$35,000 per bus)

TABLE 4.02-8

CURRENT EXPENSES OF EDUCATION PER ADA
SACRAMENTO SCHOOL DISTRICTS, 1974-75

District	1974-75 Budget		Total Expendi- ture Per ADA
	Current Expendi- tures Per ADA	Capital Outlay Per ADA	
Arcohe Union	868.42	29.97	898.39
Center Joint	1,275.02	55.05	1,330.07
Del Paso Heights	1,429.50	22.97	1,452.47
Elk Grove Unified ¹	1,034.28	32.45	1,066.73
Elverta Joint	1,390.88	31.20	1,422.08
Folsom Cordova Unified ¹	1,093.20	9.73	1,102.93
Galt Joint Union Elem.	871.30	28.29	899.59
Galt Joint Union High ¹	1,266.21	27.99	1,294.20
Grant Joint Union High ¹	1,194.55	21.69	1,216.24
Los Rios Community College	1,216.87	375.37	1,592.24
Natomas Union	2,048.12	1,611.61	3,659.73
North Sacramento	1,322.54	25.50	1,348.04
Rio Linda Union	1,125.49	2.60	1,128.09
River Delta Unified	1,753.42	119.26	1,872.68
Robla	1,510.54	14.73	1,525.27
Sacramento City Unified ¹	1,127.01	56.82	1,183.83
San Juan Unified ¹	1,025.90	13.36	1,039.26

¹Receives Necessary Small School apportionments.

Source: Sacramento County Office of Education, Business Service Department, March 25, 1975.

- . Transportation cost of busing students:

$$TC = (CMS) (STDNTS) (2D) (180)$$

TC = Transportation costs for busing

CMS = Cost per mile per student (\$0.695/mile/student)

STDNTS = Number of students bused

2D = Distance bused times two (from home to school and back)

180 = Days per year that students are buses on regular session

- . For adding portable units at existing school sites, calculate:

$$PC = (NPORT) (CPORT)$$

PC = Portable costs

NPORT = Number of portables

CPORT = Cost per portable (\$21,500 to \$27,500 purchase cost per portable)

If the school district facilities are at capacity (busing and portables are not an option), new facilities may be required. This will depend on several factors including long-term enrollment outlook, district eligibility for state building fund aid, likelihood of voter approval for bond issues, etc. The analyst may prepare an initial estimate, however, of a new facility capital investment based on state standards.

The following standards are minimum specified in the Education Code for square feet per enrollee (ADA):

	<u>Square Feet Per ADA</u>
Elementary (1-6)	55
Elementary (7-8)	75
High School (9-12)	85

In addition, there are provisions for "necessary small high schools" in addition to this standard. The costs per square foot for various types of facilities and for differing geographic locations are closely monitored by the Department of Education since cost estimates play a large part in determining whether a school district is eligible for the state school building fund program.

A current usable estimate is:

	<u>Approximate 1974 \$'s</u>
Classroom space	\$35-40 per square foot
Administrative space	30-35
Arts and crafts	30-35
Homemaking	40
Kindergarten	25-40
Science laboratories	40-45
Toilet	50
Multi-purpose	35-40

(The above are average prices that will vary with the construction cost index as well as geographic location and type of facilities.)

Land cost for new school site =

$$\text{LANDC}_i = (\text{LCACRE}) (\text{PUPILS}) (\text{ACREP}_i)$$

Definitions:

LC_i = Land cost; $i = 1, 2, 3$ for elementary, intermediate, and high school, respectively

LCACRE = Land cost per acre (obtain from school district)

PUPILS = Number of pupils

ACREP_i = Acres of land required per pupil; $i = 1, 2, 3$

Building cost for new school --

$$\text{BLDGC}_i = (\text{BCACRE}) (\text{PUPILS}) (\text{SQFT}_i)$$

Definitions:

BLDGC_i = Building cost; $i = 1, 2, 3$ for elementary, intermediate, and high school, respectively

BCACRE = Building cost per square foot

SQFT_i = Square feet required per pupil; $i = 1, 2, 3$

Bond interest repayment per year --

$$\text{BONDIR}_n = \text{SCHDULE}_n + \text{INTNEW}_n$$

SCHDULE_n = Current bond repayment schedule

INTNEW_n = Bond repayment for new land and facilities acquired (7% interest, 20 year term, and equal payments assumed)

4.03

POLICE PROTECTION

4.03.1

THRESHOLD

THE THRESHOLD ABOVE WHICH A PROJECT'S IMPACT SHOULD BE FULLY ASSESSED ARE WHERE:

1. ITS LOCATION IS ISOLATED FROM OTHER URBAN AREAS IN TERMS OF EITHER SHEER DISTANCE OR BARRIERS TO VEHICULAR MOVEMENT,
2. IT IS IN AN AREA KNOWN TO HAVE A HIGH CRIME RATE.
3. IT INCLUDES USES IDENTIFIED BY THE SHERIFF AS LIKELY TO FOSTER CRIMINAL ACTIVITY.
4. ITS DESIGN INCLUDES ELEMENTS IDENTIFIED BY THE SHERIFF AS LIKELY TO CAUSE PATROLLING OR CRIME PROBLEMS.

AT THE PLAN LEVEL, NO ADDITIONS TO THE ABOVE CRITERIA ARE APPARENT.

4.03.2

SERVICE FUNCTIONS AND ORGANIZATIONS

This service is defined as the maintenance of public order, the protection of persons and property against harm from others, and enforcement of certain laws. The service is conventionally divided into such major sub-functions as preventive patrol, traffic patrol, response to calls, and crime investigation.

Within the County, the service is organized according to whether the area is incorporated or unincorporated. Within each city, the service is provided by a city police department, except that the California Highway Patrol provides traffic patrolling on freeways. In the unincorporated areas, all traffic patrolling

is provided by the California Highway Patrol (CHP), and other police services are provided by the Sheriff's Department. This department also is responsible for certain countywide services, such as civil processing and jail operation. The department is headed by a separately elected official, but is subject to normal county budgeting constraints.

In the unincorporated area, the service is characterized by the division of the area to be protected into Sheriff's patrol beats. A beat is normally a logical area within which one patrol car is assigned, though at times two or more cars may be assigned or, conversely, two or more beats covered by one car. These assignments vary with activity which is usually heaviest on the evening watch and lightest on the morning watch. Weekdays are usually more active than weekends. Though the three-shift pattern is common, it is often combined with split or overlapping shifts to obtain variations within the ten-hour periods, for example, to meet the evening peak.

Within the beat, the patrol's activities are determined by several factors: calls requiring response; matters under investigation or surveillance; trouble spots, etc; and routine patrolling in the time left over. Response to most hazardous calls requires two officers, which makes the proximity of one patrol area to another important. Otherwise, two-man cars might be required. These patrols are backed up by such headquarter services as supervision, communication, special investigations, prisoner detention, etc.

Sheriff's services in the unincorporated areas are financed by the Unincorporated Area Services Fund. The only major service generated revenues are traffic and court fines, of which a portion of the former must be spent on traffic safety measures, such as signals or road improvements. Traffic fines in the

unincorporated area, though the citations are issued by the CHP, become County revenues. Additional revenues are derived from the Sheriff's civil process activities, from parking meters in cities, and occasionally from contract services. Federal grants, through the Law Enforcement Assistance Administration, are occasionally available to initiate particular improvements in police services.

4.03.3 DEMAND

This discussion will be confined to the Sheriff's Department and the unincorporated area. In this context, the service excludes traffic enforcement, which in terms of demand constitutes less than one-fourth of total police service demand.

4.03.3.1 Service Standards

Though one occasionally hears of national averages for officer/population ratios, they would be impractical to use as a standard in any specific local area, such as Sacramento County, because they reflect neither the actual demand, which can vary from project to project, nor the quality of the service provided. Being population-based, they also would not be applicable to non-residential projects.

One other preliminary point should be mentioned: namely, there are no established relationships between level of police service and suppression of crime. Crime arises primarily from social and neighborhood conditions, not from the absence of policemen; and the presence of policemen has only a limited suppressive effect. At a minimum level, therefore, a standard for level of service is the ability to respond to calls within some acceptable time and with sufficient forces. Beyond this, demand often is determined by what a community wants and is able and willing to pay for.

The Sheriff's Department has abandoned officer/population ratios, which were derived from actual ratios over time and were used for department-wide budget requests, in favor of two new standards for determining the need for patrol personnel:

1. "Critical response time," the goal being to develop and allocate sufficient manpower to be able to respond to all emergency calls in a maximum of five minutes.
2. "Minutes of work per hour," which records the actual time spent within a beat by both the officers assigned to that beat and others who may have been called to assist. Actual time can then be compared to assigned time, hour by hour, to indicate imbalances between beats and also to indicate the adequacy of backup from adjacent beats. For example, if actual time exceeds assigned time in an area which is easily accessible from adjacent beats, it presents a much easier problem than in an area which is not easily accessible, i.e., an isolated area.

Neither of these standards is directly related to population or land use, though, as will be discussed, both are affected by location. Both are directly related to the number and types of calls received, and these, therefore, are the most practical measure of demand.

4.03.3.2 Variations in Demand

At this time, the following demand variations have been identified:

Location

Critical response time is easiest met in large urban areas where numerous patrols are continuously deployed within five minutes of almost any point. It is most difficult to meet, according to the Sheriff, in isolated areas where travel times are greater and nearby patrols are not always available. This might require establishment of a beat in an area not large enough to fully utilize it. In effect, the patrol would have a "stand-by" character.

If an urban beat (e.g., North Highlands) has an excessive load, nearby beats can assist it, whereas an isolated beat would fall far behind in response time and would also lack backup assistance. For example, there was a period when Rancho Cordova was not large enough to justify two beats but had to be assigned them due to its isolation from the rest of the urban area.

Design

The Department believes that some development design, particularly of commercial and multi-family projects, affects the frequency of crime and, therefore, the number of calls and demand for police service. The Department has identified specific areas of concern that law enforcement would have regarding police protection in new development (Table 4.03-1). In addition, the Department has the ability to analyze development proposals by using some design criteria and EDP at the block level. It is suggested that the analyst contact the Department's Administrative Division for detailed analysis and current data. In general, the most common problems concern visibility from patrol vehicles and public streets, with the rear doors and stores, interior mall buildings, and screening around multi-family developments presenting the most common problems. Other concerns are clear designation of multi-family dwelling units, trailer park lots, and adequate lighting.

4.03.3.3 Methodology for Estimating Demand

Tables 4.03-1 and 4.03-2 summarize the main variables in service demand.

The methodology for estimating demand for police services is incomplete at this time because, to be most practical and acceptable, it should integrate the two new standards being developed by the Sheriff's Department. In addition, the Department uses a data system (LEMNAS) which records calls and dispatches by sub-beat area. The potential for using this system to correlate police service demand with land uses should be explored by the analyst. Two applications are contemplated: (1) determine where certain sub-beat areas have sufficiently distinct land use characteristics to afford a statistical base for correlations, and (2) with appropriate types of projects, request the Sheriff's Department to break out data on similar existing projects.

The system could also indicate crime rates by census tract or sub-beat area.

TABLE 4.03-1

FACTORS INFLUENCING LEVEL OF POLICE SERVICE DEMAND

<u>Land Use</u>	<u>Increase</u>	<u>Decrease</u>
Residential	Population density Vacancy - Transiency Isolated urban land uses Unemployment	Security design features including controlled exits, entrances, high visibility, good lighting, secure structures Public transportation Private patrol
Industrial	Vacancy - Transiency Isolated urban land uses Building density Traffic volumes	Security design features (see above) Workable traffic circulation and parking plan
Commercial/ Retail/Office	Same as Industrial	Security design features Public transportation Workable traffic circulation and parking plan

TABLE 4.03-2

TYPE OF POLICE SERVICE DEMANDED
FOR RESIDENTIAL, INDUSTRIAL & RETAIL LAND USES

<u>Land Use</u>	<u>Type of Police Service Demanded</u>	<u>Typical Level of Demand</u>
Residential	Service calls (Non-Crime)	High
	Prevention, deterrence of crimes against people	Moderate-High
	Suspect apprehension	Moderate
	Traffic	Light
Industrial	Prevention, deterrence of crimes against property	High
	Traffic	Low-High
	Service calls (Non-Crime)	Low
	Suspect apprehension	Low
	Prevention, deterrence of crimes against people	Low-High
Commercial/ Retail/Office	Traffic	High
	Prevention, deterrence of crimes against people, property	Moderate
	Service calls (Non-Crime)	Low

Finally, in terms of a plan for responding to new service requirements, the Department also is in the process of planning future beat requirements based in part on the two new standards. This plan could afford a framework against which to assess impact.

4.03.4 ESTIMATE SERVICE COSTS AND REVENUES

4.03.4.1 Cost

The Department states it can estimate service costs per type of crime or response call. Thus, as means for estimating the frequency with which a project will generate these activities are developed, it should be possible to determine the cost.

Should this methodology not evolve as outlined above, an alternative would be to establish the cost of a patrol-car-hour. This can be done by dividing the total annual hours of all assigned beats into the budget for unincorporated areas. The last step would be an estimate of the additional patrol time the project will require. The Sheriff's Department is the best source of such estimates.

4.03.4.2 Revenues

Sheriff's protection is financed by the Unincorporated Area Service Fund, whose revenue structure is described in Section 5. Countywide Sheriff's services (e.g., civil processing, jail operation) are included under General Government (Section 4.11).

THRESHOLD

THE THRESHOLD ABOVE WHICH A PROJECT'S IMPACT SHOULD BE FULLY ASSESSED IS WHERE:

1. ITS LOCATION AND CHARACTER EXCEED THE CAPABILITY OF THE EXISTING FIREFIGHTING SYSTEM TO PROTECT THE PROJECT IN CONFORMANCE WITH INSURANCE SERVICES OFFICE (ISO) STANDARDS.
2. ADEQUATE WATER SUPPLY FOR FIREFIGHTING IS NOT ASSURED.
3. UNUSUAL FIRE HAZARDS, PRIMARILY HEAVY NATIVE PLANT GROWTH, WOULD AFFECT THE PROJECT.
4. BUILDINGS WILL BE LOCATED FAR FROM PUBLIC ROADS AND FIRE HYDRANTS, AND WILL NOT HAVE RELIABLE PRIVATE ACCESS FOR EMERGENCY VEHICLES.
5. MOBILE HOME PARKS OR SMALL WAREHOUSE USES ARE PROPOSED.
6. OTHER USES OF EXTREMELY LOW ASSESSED VALUE AND APPARENTLY HIGH FIRE RISK.

AT THE PLAN LEVEL, NO ADDITIONS TO THE ABOVE CRITERIA ARE APPARENT ON THE ASSUMPTION THAT THE ISO STANDARDS PROVIDE ADEQUATE GUIDELINES.

This service has the primary purpose of extinguishing fires. Related functions include rescue and first aid, both at fires and in other situations, as well as fire prevention. The latter includes inspection of existing conditions and enforcement of ordinances, such as weed abatement, which are intended to minimize fire hazards.

Fire protection may be provided by counties, cities, districts, or not at all. In Sacramento County, the county provides no fire protection services directly; two cities, Sacramento and Folsom, have their own departments, and the two remaining cities, Isleton and Galt, are within fire districts.¹ There are twenty-three districts which include, in addition to these two cities, the unincorporated urban area of the county and most of the rural area. Of these twenty-three, two are governed ex officio by the Board of Supervisors, and twenty-one have independent locally elected boards. Some rural areas are unprotected, although nearby departments would probably respond in the event of a fire.

Each district is a separate entity, though there is a high degree of cooperation between the districts and cities. In addition to conventional mutual aid under which a neighboring department may be called in for assistance at a fire, there are automatic response agreements under which the neighboring department responds to fires in certain areas without waiting to be called. This device is common to cover areas where the boundaries between districts are irregular.

¹In addition, the State Division of Forestry protects certain foothill areas from natural vegetation fires; McClellan and Mather Air Force bases, and Folsom State prison each furnish their own fire protection.

Districts in the urban area have full-time paid firemen, supplemented by volunteers. The more rural districts generally rely completely on volunteers. Their costs and tax rates are commensurately much lower than the urban districts. Because generally accepted standards call for the level of fire protection to increase as the degree of urbanization increases, this urban/rural differentiation is a logical one. In addition, fire insurance costs are based on structures, so that the importance of keeping those costs down by providing a high level of protection is much greater in urban areas.

The service is financed almost entirely by local property taxes levied by each district or by the cities.

4.04.3 DEMAND

Demand for, and hence the cost of, extending fire protection service is a function of:

- . Population size and density.
- . Size of service area and internal access.
- . Concentration and condition of buildings.

Thus, in considering a project, the analyst should ask:

- . Is the agency required to serve more people or buildings? If so, can this be accomplished with existing resources, or will an expansion be required?
- . Is it required to serve a larger geographic area? What is the available access? Will this affect response times?

- . Is a higher concentration of development projected than currently exists? Does this imply future expansion of resources?

Special influences on demand include the following:

- . Infilling. Such a project will not normally present difficulties new to the area.
- . Leapfrogging. A project located beyond standard response time from the nearest station, or with inadequate water supply, may result in either a premature new station or jeopardize the agency's insurance rating.
- . Higher intensity uses. High-density, high-value, multi-story offices, commercial centers, or apartment complexes within a district not equipped for these risks may require disproportionate increases in resources.
- . Special hazards. Industrial plants using volatile materials, and similar projects, may need to provide their own fire protection or pay a special fee to avoid an inequitable burden on general taxes.
- . Use of volunteers. An agency heavily dependent on volunteers should locate its stations close to where those men live or work. Projects requiring new stations away from such areas may result in higher cost for paid firemen.

Other influences on demand, often involving the details of project design, are discussed later. Generally, local fire chiefs are able and willing experts on this subject and should be participants in the assessment.

Level of service standards are generally those established by the Insurance Services Office, which is an agency of insurance companies. The standards stipulate the manpower, equipment, water supply, etc. that should be available to meet various fire hazards or "exposures." In general, as the character of an area varies from rural to residential to commercial and industrial, and as the size, height, value, and concentration of structures increase, the standards increase. The ISO then rates¹ the various areas of a fire district against these standards, and the result is stated as a "grade." Grades range from 10 (virtually no protection; normally a very rural area) to 1. As the grade decreases, so do insurance costs. Districts in the urban area of the county typically have a grade of 4 or 5, representing adequate water supply, full-time firemen, stations within the standard distances from commercial to residential areas, etc. A common deficiency in the less developed portions of most districts is inadequate water supply, and these areas may therefore have a grade of 8 or 9. Generally, the districts are seeking to maintain or improve their present grade. Increasing manpower costs, as against S.B. 90, is the main problem in accomplishing this. As can be seen, there is a delicate balance or trade-off between firefighting and insurance costs.

¹With a maximum of 5,000 points, the weight given the various factors are:

Water supply, 39%	1,950 points
Fire department, 39%	1,950
Fire alarm, 9%	450
Fire prevention and structural conditions, 13%	650

While the standards are geared to physical conditions, they also consider the number and type of dwelling units, and therefore the number of people to be protected. In addition to structural hazards, grass and brush fire hazards exist in the less developed portions of most districts. For example, 90% of the Florin District's fires are of this type. Development tends to reduce these hazards.

4.04.3.1

The Situation in Local Fire Districts

Particular types of development present service problems, if not necessarily increased service demands, for the districts, e.g.:

- . Developments overlapping different water agencies, presenting pumping and pressure problems.
- . Buildings located far from public roads and fire hydrants.
- . Areas of deteriorated housing.
- . Commercial and industrial areas with inadequate water supply or undersized mains for firefighting.
- . Mobile homes.
- . Development that is subsequently rezoned to permit uses for which the fire requirements are different than those originally provided for.
- . Narrow or long cul-de-sacs, and any development where there is only one means of road access.

- . Condominium, apartment, and large shopping complexes with restricted or no access to buildings, in particular, layouts with interior courtyards and roads only around the exterior.
- . Projects requiring increased inspection, such as public buildings, which have to be inspected annually under the law.

Though the districts are included in the EIR process and are sent subdivision maps for review and hydrant location, they do not participate as fully in apartment and other development proposals as some would prefer.

In districts already generally urbanized (e.g., Fair Oaks), stations have been built to give the entire district an urban protection level. Future growth amounts to infilling and would not require additional stations. It should require additional hydrants and water capacity, which normally are taken care of in the development process, and incremental additions of manpower and equipment. Some examples of progressively heavier impacts in other districts are: Rio Linda might have to relocate a station if the western industrial area develops; North Highlands might have to add a station if the vacant eastern area develops;¹ and Florin, the largest district and also the one with the greatest amount of developable vacant land, would have to add several stations as subareas develop.

In general, most districts view new development as financially beneficial. It usually increases the tax base and revenues without a direct or immediate increase in service costs. Often,

¹Not to meet insurance standards, but to give the area a station as close as the developed areas now have.

too, the types of development which require more services, typically a shopping center, also pay substantially more taxes and put in better water systems. Most districts are constrained by S.B. 90, and the principal way they can finance the additional manpower they already feel is needed is by increases in the tax base. In effect, the revenue produced by the tax rate/tax base serves as the base for future planning and expansion.

The districts, especially Florin,¹ agree that scattered development might not be financially beneficial if it were located too far from existing stations. In the event of such clearly scattered development proposals, it should be possible to cost out with the Chief the measures the district would have to take either to shorten the run or house equipment nearby. Scattered development also may have an inadequate water system.

Land uses that are felt not to be financially beneficial are mobile home parks and inexpensive warehouses. The parks pay taxes on the facilities but not on the houses themselves, which are highly combustible. The present county code permits warehouses up to a certain size with very little built-in fire protection. They are inexpensive and pay low taxes but can result in many fire calls, especially if they are subsequently converted to other uses, such as subleased to a number of firms. This touches on the problem of changed use, which may increase a building's fire demands with no opportunity to change its structural fire characteristics correspondingly.

¹This district tries to understand local growth patterns in order to locate future stations efficiently. It recommends that growth be in a "gradual flowing pattern" and has provided a description of the growth it would prefer to occur in each part of the district.

Because fire protection is not site-specific, and because design variations or subsequent changes in the type of occupancy can modify the cost impact of a given project, it will be difficult to place a precise service cost on most projects. Using the factors discussed above, a project can initially be seen either to fall into the "average middle" cost/revenue group or to be at one extreme or the other. The earlier "threshold" section noted those situations in which a project might be at the adverse impact extreme. The beneficial impact extreme would be represented by projects characterized by the following:

- . Infilling, close to existing stations.
- . High-value, high-quality construction.
- . Adequate water supply available.

At least with the potentially adverse impact projects, the analyst should ask the assistance of the affected district. The district should be asked to do two things: (1) estimate the demands and associated costs the project will cause the district, and (2) suggest mitigation measures or alternate projects. It is expected that most, and probably all, districts will respond positively, particularly with respect to demands and mitigation measures. Converting demand to cost may at first be difficult for some districts, particularly if the cost figure is seen as a commitment by the district rather than as an isolated estimate. Districts are also reluctant to become involved in the land use planning process to the extent of recommending alternate projects if it implied either opposition to a development proposal or a recommendation that the zoning be changed.

Maps of all of the districts, showing present and planned stations, water availability, and insurance rating zones, also are being developed as part of this study and might later include existing and planned land uses and other relevant data.

Table 4.04-1 contains rough costs for fire station capital outlay and operation, as estimated by the Chief of the Rancho Cordova Fire District. As noted earlier, virtually all revenues are from the local property tax and can be estimated by multiplying the anticipated assessed value of the project by the district's current tax rate.

Table 4.04-1

SAMPLE FIRE SERVICES BUDGETS

	<u>Residential Station</u>	<u>Commercial/ Industrial Station</u>
<u>Capital</u>		
Land	\$ 20,000	\$ 40,000
Station	50,000	150,000
Pumper	65,000	65,000
Ladder Truck	--	100,000
	<u>\$135,000</u>	<u>\$355,000</u>
<u>Annual Operations</u>		
Two-man Pumper Company (7 firemen)	\$123,500	\$123,500
Three-man Ladder Company (10 firemen)	--	174,500
Miscellaneous	<u>12,000</u>	<u>29,000</u>
	<u>\$135,500</u>	<u>\$327,000</u>

4.05 ROAD SERVICES

4.05.1 THRESHOLD

THE THRESHOLD ABOVE WHICH A PROJECT'S IMPACT SHOULD BE FULLY ASSESSED ARE WHERE:

1. ADJACENT MAJOR ROADS ARE, OR WOULD BE, CONGESTED IN EXCESS OF THE COUNTY'S STANDARDS, CURRENTLY EXPRESSED AS "LEVEL OF SERVICE C." WHILE THE METHODOLOGY DOES NOT SET FORTH THE FISCAL IMPACT OF CONGESTION, THIS THRESHOLD CALLS ATTENTION TO THE NEED FOR AMELIORATIVE PLANS AND COST ESTIMATES FROM THE PUBLIC WORKS DEPARTMENT.
2. ROAD MILEAGE, LANDSCAPING, ETC. ADDED BY THE PROJECT ARE USUALLY HIGH IN RELATION TO THE PROJECT'S POPULATION OR ASSESSED VALUE. THIS WOULD BE MOST LIKELY IN EXTREMELY LOW DENSITY RESIDENTIAL PROJECTS.
3. WHERE THE COUNTY WOULD BE REQUIRED TO SHARE IN THE COST OF THE ROAD IMPROVEMENTS RELATED TO THE PROJECT. THIS IS INTENDED TO INDICATE PROJECTS THAT MIGHT DISRUPT THE PRIORITIES OF THE COUNTY'S ROAD IMPROVEMENT FINANCING PLAN.

AT THE PLAN LEVEL, IN ADDITION TO THE ABOVE THREE INDICATORS, SIGNIFICANT DIFFERENCES AMONG ALTERNATIVES IN TERMS OF EITHER COMMUTING TRIPS OR PUBLIC TRANSIT USE WOULD BE FULLY ASSESSED.

Road service includes the acquisition, construction, and maintenance of public roads and related sidewalks, drainage structures, bridges, landscaping, traffic signs and signals, street lights, etc.

Locally, the service is organized by three levels:

- . State highway system.
- . County road system in the unincorporated area.
- . City street systems in the incorporated area.

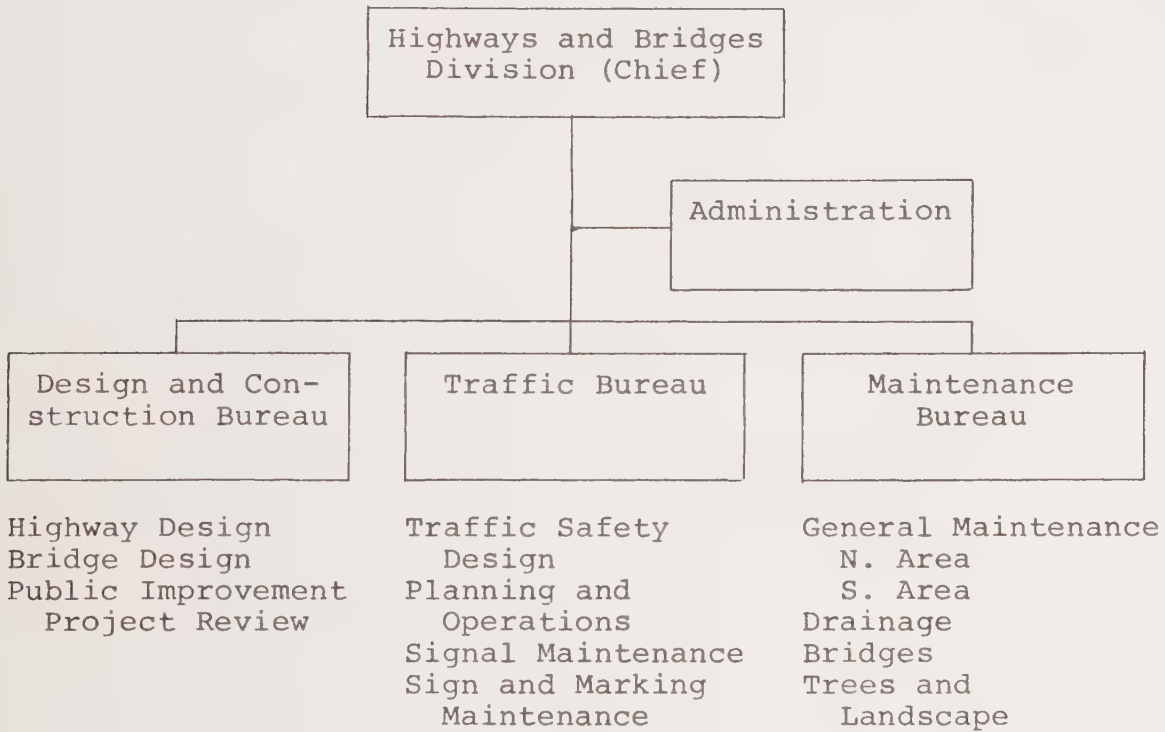
As a prerequisite to receipt of gas tax revenues from the state, counties and cities must designate which of their roads are in the "Select System." Normally, these are the major roads, and a portion of the gas tax must be spent on their improvement.

County roads are the responsibility of the Highways and Bridges Division of the Public Works Department. In an unincorporated area, there is a small number of local roads that, though open to the public, have not been dedicated to, or accepted by, the county and are, therefore, a private responsibility. The county has established minimum construction standards for roads that it will accept for dedication.

The Highways and Bridges Division is organized as shown in Table 4.05-1. The public improvement projects noted in the Table are installed by contractors working for either the county (in the case of county projects) or private developers (in the case of private development projects). A county

TABLE 4.05-1

HIGHWAYS AND BRIDGES DIVISION ORGANIZATION CHART



project is one initiated and financed by the county, normally of general benefit and a part of the county's road improvement plan. In a private development project, the developer is responsible for constructing roads required by the county as part of the subdivision or other private development plan.

General maintenance is divided into such activities as minor patching, seal coating (a light resurfacing of the road), overlaying (repaving), landscaping, sweeping, ditch cleaning and shoulder work. Street lighting, where provided, is maintained by the Division, except where the lights are on the electric utility poles. The cost is paid by the county, for arterial intersection lighting, and by special district taxation of the areas served in the case of residential street lighting.

The Road Fund is financed from several sources, the major ones in the unincorporated area being:

- . State Highway Users Tax Fund. This is the gas tax, and the amount each county receives is based on the number of registered vehicles countywide and the unincorporated area assessed value.
- . The Unincorporated Area Services Fund. Previously, the county levied a road tax rate in the unincorporated area. Allocations from this fund, which consists of revenues derived from the unincorporated area to finance a number of services, are intended to replace that tax.
- . Traffic fines. At least 50% of these revenues from fines in the unincorporated area must be used for various traffic safety purposes.

- . Federal Aid Urban Funds. These are allocated to county areas, where they may be spent on selected city, county, and state road improvements.
- . Federal Aid Secondary Funds. These are controlled and matched by the state; however, the Federal Highway Administration, state and county jointly agree which county roads shall be improved by the use of these funds.
- . S.B. 325 Funds. Often called "Article 8" money, these are revenues from the sales tax on gasoline and are allocated regionally for public transportation. Currently, virtually all Sacramento area funds go to regional transit, and the small amount the Highways and Bridges Division receives can be spent only outside the transit district boundaries.
- . Other County Funds. Although Sacramento now limits road expenditures to revenues, if additional funding were needed, it could come from property taxation and other sources.

4.05.3 DEMAND

The present level of service the county seeks to maintain is defined as "C" in the Highway Capacity Manual. In this Manual, the various levels of service are defined as:

"Level of service A describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions. There is little or no restriction in maneuverability due to the presence of other vehicles, and drivers can maintain their desired speeds with little or no delay.

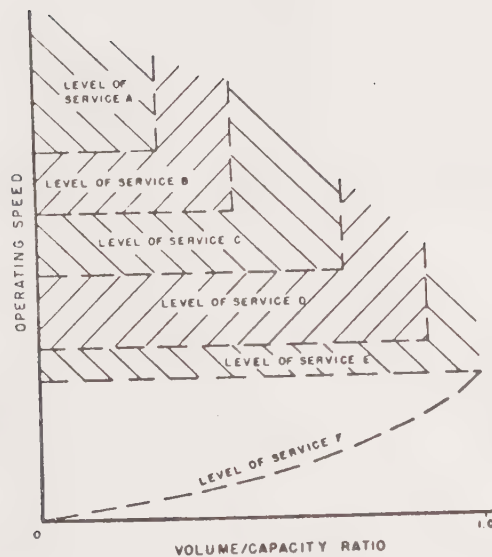
"Level of service B is in the zone of stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation. Reductions in speed are not unreasonable, with a low probability of traffic flow being restricted. The lower limit (lowest speed, highest volume) of this level of service has been associated with service volumes used in the design of rural highways.

"Level of service C is still in the zone of stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most of the drivers are restricted in their freedom to select their own speed, change lanes, or pass. A relatively satisfactory operating speed is still obtained, with service volumes perhaps suitable for urban design practice.

"Level of service D approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low, but conditions can be tolerated for short periods of time.

"Level of service E cannot be described by speed alone, but represents operations at even lower operating speeds than in level D, with volumes at or near the capacity of the highway. At capacity, speeds are typically, but not always, in the neighborhood of 30 mph. Flow is unstable, and there may be stoppages of momentary duration.

"Level of service F describes forced flow operation at low speeds, where volumes are below capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. The section under study will be serving as a storage area during parts or all of the peak hour. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of the downstream congestion. In the extreme, both speed and volume can drop to zero."



For a complete and highly readable description, see Highway Research Board, "Highway Capacity Manual" (Special Report 87), Washington, D.C., National Academy of Sciences, National Research Council, 1965.

The Highways and Bridges Division makes estimates of the added traffic to be generated by specific developments (see Table 4.05-2 for a general guide), and analyzes this impact on adjacent streets and intersections, though not on the entire system. A small development, unless it is a high-density apartment complex, is normally found to have no noticeable impact, though a number of such developments collectively or a single large project would have a noticeable impact. Only in the latter case is the impact normally given explicit attention.

On a special basis, the department has measured trips generated by existing projects, notably shopping centers, and could provide estimates for certain new developments by the same technique, namely, measuring similar existing developments.

TABLE 4.05-2

GENERAL GUIDE ON TRIP-END GENERATION RATES BY LAND USE

Type of Land Use	Type of Development	No. of Studies	Weekday Trip End Generation Rates	
			Average ¹	Range
Residential	Subdivision	20	9.5 TE per occupied dwelling unit	6.4-12.7
	Apartment	14	5.9 TE per occupied dwelling unit	3.1- 7.9
	Mobile home park	17	5.4 TE per occupied dwelling unit	2.8- 6.8
	Retirement community	5	3.3 TE per occupied dwelling unit	2.9- 4.9
Commercial	Shopping center (regional)	2	485 TE per net acre	432- 670
	Shopping center (neighborhood)	1	1000 TE per net acre	--
	Motel	8	10.4 TE per occupied unit	4.7-13.4
	Restaurant	3	48 per 1000 sq. ft. floor area	31- 73
Industrial	Various types of industry	24	88 TE per net acre	9- 256
	Industrial park	3	77 TE per net acre	66- 140
	Warehouse	9	81 TE per net acre	28- 256
	Mass production	5	137 TE per net acre	38- 191
	Administration	6	71 TE per net acre	28- 229
	Research and development	6	65 TE per net acre	31- 127
	Specialty production	7	39 TE per net acre	9- 159
Major Institution	College (4 years)	5	2.2 TE per student	1.9- 2.7
	College (2 years)	4	1.3 TE per student	1.1- 1.6
	High school	5	1.3 TE per student	1.1- 2.1
	Grammar school	1	0.7 TE per student	--
	Civic center	2	30 TE per 1000 sq. ft. floor area	25- 69
	Hospital	6	10.4 TE per bed	4.5-14.9
	Medical office	4	41 TE per doctor	31- 53
	Library	2	51 TE per employee	37- 82
Recreational	Picnicking	25	0.8 TE per total acre	0.1- 35
	Winery with tasting room	1	11.0 TE per employee	--
	Golf course (18-hole)	6	6.4 TE per acre	2.5-10.2
			816 TE per golf course	237-1524
	(9-hole)	1	176 TE per golf course	--
	Bowling lane	1	33 TE per lane	--
	Marina	3	4.8 TE per berth	3.2-10.0
	Ocean beaches	12	44 TE per 1000' of beach	8.0- 345
	Swimming	6	7.4 TE per total acre	1.7- 20
	Hiking trails	17	0.5 TE per total acre	0.1-10.3
	Overnight camping	9	0.3 TE per total acre	0.1-12.2
Airport	County airport with less than 415 based aircrafts	6	8.6 TE per based aircraft	2.4-20.1
	Municipal airport with 500 based aircrafts	1	12 TE per based aircraft	--

¹ Average rates are weighted from the total number of studies for each type of development with ranges shown. They will be updated periodically as more studies are made. Average rate for developments with limited number of studies may be drastically changes.

Source: California Department of Transportation, District 4 Trip Ends Generation Research Counties, as referenced in "Socioeconomic Impacts of Environmental Policies," Baxter, McDonald & Smart, Inc., December, 1973. Except for Fresno State College, all studies were taken within the San Francisco Bay Area.

The present system was planned on the assumption of the fairly low density, scattered residential development that currently characterizes the county. Recent general plan and rezoning trends toward higher densities in the closer-in areas, along with their infilling, is creating traffic in excess of plan assumptions. Meanwhile, streets on the fringes of the urbanized areas are well below capacity, suggesting that, in terms of traffic congestion, residential and employment projects located on the fringe will have less impact than closer-in projects.

4.05.4 ESTIMATE SERVICE COSTS AND REVENUES

4.05.4.1 Capital Costs

There are two types of roads in the county system with respect to private development projects: the Select System, which is for those major roads the county has designated in its plan; and Minor Roads, typified by subdivision streets. If a project requires new minor roads, the developer provides the total cost of construction, except for certain drainage structures. If a project involves widening or constructing a section of the Select System, the developer provides the equivalent geometrics of what a minor road would provide, and the county provides the balance. For example, a minimum subdivision street has a 42-foot right-of-way, 25-foot paved width, curbs, gutters, and sidewalks. Developers also provide 54-foot, and 60-foot subdivision streets when more than the maximum is required. Extension of a Select System road might require much wider rights-of-way and paved widths. For these projects, estimates of the county's share would be made by the Highways and Bridges Division.

4.05.4.2 Maintenance Costs

The Division has unit or annual costs for certain maintenance items, such as striping, signals, and overlays. Basic

maintenance of the road surface, however, will vary over the years with a number of unpredictable factors, such as heavy vehicle traffic. The most common type of street the analyst will be concerned with is the normal subdivision street. It probably will require nothing more than minor patching and sweeping for the first 5 to 10 years. At that point, it may require seal-coating, at a cost of \$2,000-\$2,800 per mile, which should be adequate for the next 5 to 10 years. Eventually, it will require resurfacing, at a cost of \$18,000 per mile. With aging and the growth of street trees, curbs, gutters, sidewalks, and drainage may eventually require repair. Thus, a workable basis for estimating the annual maintenance cost impact of new minimum subdivision streets added by a project might be:

	<u>1974-75 Costs</u>
Routine maintenance	\$ 500 per mile
Seal-coating pro rate ¹	343
Overlay pro rate ²	<u>1,285</u>
	\$2,128 per mile

¹Each seven years at \$2,400 per mile.

²Each fourteen years at \$18,000 per mile.

This is the long-term impact. The short-term impact would be much less, as noted earlier. Keeping in mind that a minimum subdivision street has a 26-foot paved width, the above figures also could be used to indicate the added annual maintenance costs of other similar types of road surfaces added to the county system by a project. Of course, Select System additions would have a substantially higher per mile cost. If the project requires signals, striping, signing, landscaping, intersection lighting, etc., unit capital and maintenance costs can be estimated by the division.

4.05.4.3 Indirect Costs

In addition to the new road surfaces it will add to the county system, a project usually will add traffic to the existing streets. As noted earlier, a precise assessment, going beyond nearby arterial intersections, of this impact is not practical. The assessment should note, however, that as traffic increases, additional signals, signs, stripes, etc. will be needed, as well as ultimate expansion of major roads.

4.05.5 REVENUES

Major sources of revenues earmarked for roads and highways are the Highway Users Tax Fund (composed of Sections 2104, 2106, and 2107) and vehicle code fines. The methodology for allocating the Highway Users Tax collections appears in Section 5.08.1; Section 5.06 contains guidelines for estimating vehicle code fines.

Over time, extensive development in an area may tend to increase the county's eligibility for federal aid programs, as well as construction on the state highway system. The analyst should be aware of this and consult the County Road Department regarding application for these funds for areas of extensive new development.

This methodology presents a generalized approach to estimating demand for park and recreation services and calculating service costs. It reflects both statewide acreage and facility standards and Sacramento County's park acreage standards which are more an indication of goals than actual practice. The methodology must be interpreted in the context of the particular district's operation and specifically its budget constraints which are largely dictated by the district's assessed valuation, its property tax limits specified under S.B. 90, and anticipated non-local (state and federal) revenues.

4.06.1

THRESHOLD

A DETAILED ASSESSMENT IS WARRANTED ONLY AT THE PLAN (GENERAL, NEIGHBORHOOD, COMMUNITY, OR AGENCY) LEVEL OR WHEN A PROJECT IS OF THE SCALE THAT IMPLIES CHANGES IN THE EXISTING SERVICE PLANS. THIS WOULD INCLUDE PROJECTS THAT WOULD:

- . MODIFY THE PLANNED LOCATION AND/OR SIZE OF PARK FACILITIES.
- . MODIFY THE CAPITAL IMPROVEMENTS BUDGET OF THE DISTRICT, CAUSING PROBLEMS IN FINANCIAL PLANNING.

A DETAILED ASSESSMENT INCLUDES PREPARATION OF A SERVICE PLAN BASED ON ESTIMATED DEMAND AND PREPARATION OF THE SERVICE PLAN COST ESTIMATES. A NON-DETAILED ASSESSMENT IS APPROPRIATE FOR SUBDIVISIONS THAT PROVIDE ADEQUATE ONSITE PARK ACREAGE. THE APPROACH THEN WOULD CONSIST OF (1) CHECKING THE PLAN FOR CONFORMITY WITH THE COUNTY'S PARK DEDICATION ORDINANCE (BEGINNING WITH SEC. 22.12.525 OF THE SACRAMENTO COUNTY CODE); (2) REVIEWING IMPLEMENTATION

OF THE DEDICATION WITH THE DISTRICT MANAGER TO DETERMINE ASSOCIATED IMPROVEMENT COSTS TO BE INCURRED BY THE DISTRICT, (3) IDENTIFYING ANY DISTRICT BUDGET PROBLEMS (E.G., CASH SHORTFALLS), (4) ESTIMATING THE PROJECT'S COST/REVENUE RELATIONSHIP FOR PARK AND RECREATION SERVICES, AND (5) RECOMMENDING MITIGATING MEASURES FOR POTENTIALLY ADVERSE IMPACTS.

4.06.2

SERVICE FUNCTION AND ORGANIZATION

Park and recreation services in Sacramento County include a broad range of park types and programs. Parks range in size from the 270-acre Goethe Park along the American River and the 125-acre regional park in Elk Grove, to neighborhood tot lots. Under the eighteen different governmental entities responsible for park and recreation services in the County, there is an array of open space -- natural preserve acres (particularly along waterways and other natural attractions), recreational complexes and sport types of facilities (some operated jointly with schools), and a variety of other types of recreation amenities and programs.

The organization of park and recreation services in Sacramento County is jurisdictionally defined with four dependent park and recreation districts, nine independent or autonomous districts, three county service areas, one park maintenance district, and the City of Sacramento Parks and Recreation Department. Each of these jurisdictions covers a specified service area with its own park areas, facilities, programs, and financing structure.

Table 4.06-1 lists the service jurisdictions and presents summary data on the various districts including recent fiscal information. The table indicates the wide variations in district size, expenditures, and tax rates which reveal variations in service levels among county areas. While the County Local

TABLE 4.06-1

SUMMARY DATA ON PARK AND RECREATION DISTRICTS
FISCAL YEAR 1973-74

District	Type (Depen./ Indep.)	Area (Square Miles)	Popu- lation	Annual Expen- diture	Cost/ Cap.	Assessed Valuation		Tax Rate		S.B. 90
						Secured	Unsecured	Sec.	Unsec.	Limit
Arcade Creek	Indep.	4.00	11,878	\$72,392 ¹	6.09	\$25,330,421	\$2,874,687	\$0.134	\$0.106	0.134
Arden Manor	Indep.	1.50	6,876	76,800 ¹	11.16	9,032,654	579,137	0.577	0.540	0.622
								0.045	0.038	
Arden Park	Indep.	1.21	6,131	82,101 ²	13.39	9,538,843	184,928	0.503	0.500	0.531
								0.033	0.028	
Carmichael	Depen.	8.68	34,629	453,216 ¹	13.08	53,289,302	1,715,622	0.380	0.380	0.380
Cordova	Indep.	79.62	47,936	586,191	12.22	80,722,840	6,855,073	0.480	0.450	0.603
								0.123	0.161	
Elk Grove	Depen.	75.18	10,451	7,945 ²	0.76	24,561,922	845,966	0.030	0.030	0.030
Fair Oaks	Depen.	15.04	20,595	264,171 ¹	12.82	30,321,363	1,202,731	0.510	0.510	0.510
Fulton-El Camino	Indep.	5.00	26,151	401,268 ¹	15.34	61,991,448	8,242,333	0.440	0.393	0.550
								0.110	0.120	
North Highlands	Indep.	3.01	32,932	195,476 ¹	5.93	18,258,732	909,967	0.510	0.510	0.579
South Gate	Indep.	14.50	26,193	282,789 ²	10.79	48,770,324	5,445,525	0.620	0.520	0.620
Sunrise	Depen.	31.97	71,378	905,089 ¹	12.68	103,881,097	8,947,867	0.510	0.510	0.510
Windemere	Indep.	10.00	1,660	3,621 ¹	2.18	4,335,856	48,785	0.098	0.045	0.098
Mission Oaks	Depen.	8.50	47,290	293,527 ²	6.20	102,932,457	5,319,064	0.500	0.500	0.500
CSA 3	Depen.	10.00	11,567	36,276 ²	3.13	7,178,263	273,514	0.510	0.510	0.510
4A	Depen.	1.90	17,988	54,509 ²	3.03	16,458,787	256,027	0.350	0.350	0.350
4B	Depen.	205.00	4,141	--	--	--	--	--	--	--
C	Depen.	95.00	2,113	--	--	--	3,319,378	--	0.030	--
D	Depen.	135.00	4,613	--	--	--	--	--	--	--

¹County Auditors Office.

²Computer printout: Expenditure Detail, Accounting Period 14, July 1, 1971-July 26, 1974.

Sources: County of Sacramento 1973-74 Final Budgets of Independent Special Districts; County of Sacramento 1973-74 Final Budget, County Auditor's Office; LAFCO Report: Spheres of Influence; Parks and Recreation Department.

Recreation Spaces Element of 1969 specifies park acreage and open space standards per 1,000 population, the standards are not uniformly operative. Actual situations reflect significant per capita differences in park acreage, capital investment in facilities, and annual expenditures (as indicated by property tax rate differences) among the jurisdictions. While park and recreation facilities are supposed to be a function of population demand (a composite term encompassing population, size, characteristics, preferences, and willingness to pay), in practice their existence is a function of the wealth (assessed valuation) of a district and the district's ability to tap other, non-property tax revenues. A step toward uniformity in provision of park and recreation services in the county was taken in 1973 with adoption of a Park Dedication ordinance the requirements of which are a condition to approval of a final subdivision map. This ordinance is explained further below in connection with procedures for estimating demand and service costs.

Having stressed actual variations in service levels among jurisdictions in this introduction, the following sections deal with analytical approaches to estimating demand and costs and specific procedures to calculate both.

4.06.3 DEMANDS FOR PARK AND RECREATION SERVICES

The first step in estimating the cost of parks and recreation is to estimate the demand for these services and the portion of demand that will be met by public agencies included in the economic impact analysis. The demand assessment takes place in three steps:

- . Prepare an overall assessment of demand for parks and recreation by residents within the area and for visitors to the area being analyzed.
- . Prepare a public services plan defining responsibility for supplying parks and recreation.
- . Revise the demand estimates to reflect those demands that are priorities to be supplied by the local agencies.

There are two basic approaches (each with many variants) to establishing "demand" for parks and recreation programs. The first is to have "demand" be determined primarily by the natural resource characteristics of the land area within the jurisdiction. Generally, this approach applies to open space elements of an agency general plan rather than to park and recreation districts since the preservation of natural reserves, wildlife habitats, and the like usually comes under the rubric of conservation. Where appropriate, however, a composite selection and classification of all such natural resources areas by a park and recreation district would identify land for which there is a public "demand" in the sense that public consensus and commitment can be developed to finance the costs of preservation.

The other more traditional sense of "demand" for parks and recreation programs embodies the concept of estimating the facilities (including land and equipment) that will, as user charges and other costs are imposed, match the desires of the users to participate in recreational activities. This traditional approach, for example, first estimates the user demand by residents and non-residents for camping (normally measured in thousands of visitor days per year). Then a decision is

made as to what portion of this total demand should be met by any agency and what capacity should be available at a single point in time. The decision is based both on policy considerations and on past experience of the agency. The pre-existing supply is inventoried and the deficit between this supply and the demand estimate becomes the target of the public agency.

Demand, in this sense, is normally estimated by one of two approaches. First, as a starting point, demand estimates can be an assessment of individual demand for recreational activities. A technique commonly used in Sacramento County park and recreation districts is to survey residents to determine how often they participate in recreational activities in order to estimate the likelihood that people would participate in recreational activities if, in fact, they were available under specified conditions of access, price, quality, etc.

Then expressions of demand or "desire to participate in" can be converted into facility requirements using design standards that reflect both previous experience with user behavior and policy decisions about crowdedness, the portion of total demand that is each agency's responsibility, and so on.

The State of California guidelines for outdoor recreation demand and supply are based on the above general approach. Demand, supply, and deficit estimates are available for each major metropolitan area of the state and provide guidance to the analyst who is concerned with detailed recreation demand estimates.¹

¹
See State of California Department of Parks and Recreation, Park and Recreation Information System.

Statewide recreation demand estimates are fairly general and do not respond to newly emerging recreation activity (e.g., trail biking). A current estimate of demand strictly relevant to local conditions is a major undertaking that is beyond the scope of any economic impact analysis done for project situations.

The second approach to traditional estimates of demand is based on applying standards for facilities that are related directly to population. These standards, at least theoretically, relate to the demand for recreation by populations; and, presumably, by adhering to these standards, a satisfactory recreation experience can be provided.

Standards recommended in the Sacramento County Recreation Element are shown in Table 4.06-2, and standards of the National Recreation and Park Association are given in Table 4.06-3. Local standards for park and recreation facilities are found in district and community master plans which the analyst should consult.

Standards related to population can be extremely useful as a check against proposals for developments and can be used directly in situations where park and recreation supplies are not critical to the impact analysis being carried out. It must be kept in mind that these standards must cover a wide range of demands and of community intentions.

After a first estimate of demand has been prepared, a public services plan should be established to indicate the agencies responsible for meeting the portion of total demand that any public agency is in fact willing to undertake.

TABLE 4.06-2

PARK AND RECREATION STANDARDS,
SACRAMENTO COUNTY LOCAL RECREATION SPACE ELEMENT

	Park Area Standards		
	<u>Neighborhood</u>	<u>Community</u>	<u>District</u>
Size (acres)			
Independent	4-8	10-15	40-60
Adjacent to school	2-3	-	-
Acres/1,000 population	2.-2.5	1-2	1-2
Service area (miles radius)	1/4-1/2	1-2	whole district
No. families (dwelling units) in service area	600-1,000	3,000-5,000	9,000-12,000

Source: Sacramento County Local Recreation Space Element, 1969.

TABLE 4.06-3

RECOMMENDED STANDARDS FOR PARKS BY CLASSIFICATION AND POPULATION RATIO

Classification	Acres/ 1,000 People	Size Range ²	Population Served	Service Area
Playlots	NA ¹	2,500 sq.ft. to 1 acre	500-2,500	Sub-neighborhood
Vest-pocket parks	NA ¹	2,500 sq.ft. to 1 acre	500-2,500	Sub-neighborhood
Neighborhood parks	2.5	Min. 5 acres up to 20 acres	2,000-10,000	$\frac{1}{4}$ - $\frac{1}{2}$ mile
District parks	2.5	20-100 acres	10,000-50,000	$\frac{1}{2}$ -3 miles
Large urban parks	5.0	100+ acres	One for each 50,000	Within $\frac{1}{2}$ hour driving time
Regional parks	20.0	250+ acres	Serves entire population in smaller communities; should be distributed throughout larger metropolitan areas	Within 1 hour driving time
Special areas	NA ¹	Includes parkways, beaches, plazas, historical sites, flood plains, downtown malls, and small parks, tree lawns, etc. No standard is applicable.		

STANDARDS FOR SPECIAL FACILITIES

Facility (Outdoor) ³	Standard/ 1,000 People	Comment
Baseball diamonds	1 per 6,000	Regulation 90'
Softball diamonds (and/or youth diamonds)	1 per 3,000	
Tennis courts	1 per 2,000	(Best in battery of 4)
Basketball courts	1 per 500	
Swimming pools, 25 meter	1 per 10,000	Based on 15 sq. ft. of water for each 3% of population
Swimming pools, 50 meter	1 per 20,000	
Skating rinks (artificial)	1 per 30,000	
Neighborhood centers	1 per 10,000	
Community centers	1 per 25,000	
Outdoor theaters (non-commercial)	1 per 20,000	
Shooting ranges	1 per 50,000	Complete complex, including high-power, small-bore, trap and skeet, field archery, etc.
Golf courses (18 hole)	1 per 25,000	

¹Not applicable.

²By percentage of area: The National Recreation and Park Association recommends that a minimum of 25% of new towns, planned unit developments, and large subdivisions be devoted to park and recreation lands and open space.

³All of the facilities listed are desirable in small communities, even though their population may actually be less than the standard. Every effort should be made to light all facilities for night use, thus extending their utility.

Source: Robert D. Buechner (Ed.), National Park Recreation and Open Space Standards Washington, D.C.: National Recreation and Park Association, 1971, pp. 12 and 13 as quoted in S. M. Gold, Urban Recreation Planning (Philadelphia: Dea and Febigo, 1973).

Park and recreation demand estimates for local agencies, in most situations, reflect the characteristics of local residents and local users. While average measures of demand for recreational activities are available, investigations demonstrated that actual demand varies with the type of residential development depending on such socioeconomic characteristics as age, race, and income.

Single family subdivisions, apartments, and mobile homes will usually generate demand for public park and recreation services in relation to private amenities and open space provided within the development. The experience of the Southgate Park and Recreation District has been low demand for services by mobile home developments (because of ample project recreation activities and programs), and high demand by apartment dwellers because of the absence of onsite amenities.

Newly developed subdivisions will generally attract younger persons and families whose demand for athletic facilities and programs may be almost insatiable; but, as the community matures, recreation demands shift and so do the appropriate mix of recreational facilities. In fact, over a long-range planning horizon, demand may shift from a primarily youth-oriented program to one that gives greater concern for the special needs of the elderly.

Similarly, economic conditions in an area may influence recreation demand, reflecting the fact that lower income families have few recreational alternatives other than public recreation facilities. More affluent communities may support open space programs, but have little interest in group instructional programs. This is the case in Fair Oaks, for example, where demand for capital facilities is high and relatively low for programming.

Finally, the geographic characteristics of an area and its state of development will affect citizen perceptions about the need for parks and recreation. As an example, the more remote, less urbanized areas of the county may exhibit little demand for "active" park and recreation districts, such that "holding zones" (e.g., County Service Areas 4B, C, and D) are an adequate means of preserving open space until such time as population increases and demand favors an "active" district.

4.06.4 COST ESTIMATING TECHNIQUES

For a detailed approach, the analyst must cost the service plan produced as a result of the above estimates of demand. Detailed service estimates follow the procedures described in Section 4.06.4.1-4.

Indicator methods are appropriate for subdivisions that allocate sufficient park space onsite. As indicated in the threshold discussion, the analyst in this case would calculate the required improvement costs that the county is responsible for and would compare these costs against the property tax revenues generated by the project to assess the cost/revenue relationship. In doing this, the analyst would apply the existing property tax rate of the park and recreation district if the project is to be completed in that fiscal year. If the project is phased, the analyst must consider the district's future property tax rate. If the district is taxing at its property tax rate limit under S.B. 90, the property tax rate -- for the purposes of simplicity -- should be held constant.

4.06.4.1 Costs of Acquisition

With the cautions noted above, the procedure for estimating the cost of acquiring a park is simply that of estimating the price at which it will be acquired. In the absence of a formal appraisal, the cost estimate can be made by observing the fair market value that has been estimated by the County Assessor. The analyst normally will wish to establish the timing cycle by which the Assessor updates his estimated value and, if the assessment is out of date, apply a percentage per year inflation factor to reflect price changes.

4.06.4.2 Park and Recreation Area Development Costs

After lands for park and recreation areas have been acquired, capital costs will be incurred to make the land suitable for visitor use. The costs will depend on such factors as access, availability of water, and waste treatment required and will normally range from the least cost for open space with turf to the highest costs for high-intensity recreation activities. These costs can be estimated either on the basis of preliminary or detailed architectural/engineering designs or on the basis of unit cost standards.

A variant is to estimate the cost of identifiable and expensive items, such as an access road on the basis of a design, and estimate of other items (e.g., picnic tables, swimming pools) on the basis of average unit costs for the agency.

4.06.4.3 Operation and Maintenance Costs

Operating and maintenance costs for park and recreation programs can be estimated by one of two techniques. First, cost

estimating relationships have been developed for parks and open space lands as a function of park type, use, and sizes. This technique is valuable for preliminary cost estimates, but the range of unit costs is extremely wide, even in one jurisdiction. For example, the factors of level of service, difficulty of access, basic organization of the operating agency, etc. have a strong influence on costs. Still, in the absence of more detailed information, unit costs are applicable.

The more accurate method of estimating the cost of operation and maintenance is to relate new recreation programs and new maintenance responsibilities to the organizations that will be responsible and to their proposed staffing plan. This detailed cost estimate, which would normally require the cooperation of the responsible administrators, will specify the number of individuals to be added to the staff, the additional equipment that will be required, the level of service that will be provided, and so on. As a general guide, a recent study noted "...in most agencies, approximately 70-77% of the operating budget goes to salaries and benefits, 20-25% to services and supplies, and 4-8% to equipment...."¹ Review of the expenditures of park and recreation districts in Sacramento County for 1972-73 validates this conclusion.²

4.06.4.4 Alternative Methodologies for Cost Estimating

In most cases, the analyst will be able to prepare an estimate of acquisition, development, operating, and maintenance costs

1

Association of Bay Area Governments, "How to Implement Open Space Plans for the San Francisco Bay Area," Volume 2, June, 1973, page 130.

2

California Controller's Office, "Financial Transactions Concerning Special Districts in California, 1972-73."

for park and recreation services on the basis of general guidelines and a review of agency programs and budgets. These estimates should be reviewed with the administrator responsible for the program in each jurisdiction.

In selecting the method from among those listed below for estimating costs, the analyst must be guided by the situation being analyzed and by the data available. Method C is the recommended method of estimating operation and maintenance costs, but Method D can be applied in the absence of the resources required for more detailed estimates.

Capital Expenditures

Method A: Demand, Supply, and Cost Estimates
Method B: Park Standards and Costs

Operating and Maintenance Costs

Method C: Projection of Agency Budget
Method D: Cost Standards

Method A: Demand, Supply, and Cost Estimates

The conventional method used to estimate capital expenditures for park and recreation areas (in contrast to non-park open space) is to:

- . Prepare an estimate of annual demand by recreation activity.
- . Allocate this demand (which originates in population centers) to geographic areas where this demand will be satisfied.

- . Convert annual demand into facility requirements at any point in time.
- . Compare supply with requirements and calculate a surplus or deficit.

The step of allocating demand and supply may be done strictly on a numerical basis for preliminary planning purposes but normally requires a site selection and a master plan for refined budget estimates. In either case, the unit costs for recreation facilities should be based on local experience and design standards.

An example of the simplified process (i.e., based on unit cost and not on a detailed site plan and detailed cost estimate) is shown in Table 4.06-4.

Method B: Park Standards and Costs

A procedure for estimating capital cost at a quite preliminary level is to use the jurisdiction's general planning standards for parks and recreation and to convert these standards into total costs. This procedure is useful as a guide only. An illustration of its use is given in Table 4.06-5.

The following two methods are useful for estimating the annual cost of maintaining and operating park and recreation areas.

Method C: Projection of Agency Budget

As with the case of capital expenditures, the most accurate estimating procedure is to prepare a budget estimate considering how, in fact, maintenance will be provided, what the economies

TABLE 4.06-4

POTENTIAL DEMAND AND FACILITY DEFICIT

	Actual Annual Use (visitor days)	Actual Peak Use (persons)	Facility Capacity (persons)	Surpluses Deficit) (persons)	Deficit (facility unit)	Average Capital Cost Per Unit (land and improvements)	Total Cost
Playgrounds	7,500	300	1,000	700	-	25,000/lot	0
Sports (fields, courts, gym)	51,900	2,000	1,500	(500)	3 fields	37,000/fld	111,000
Parks (green areas)	38,200	1,200	2,000	800	-	80,000/ac.	0
Nature activity	2,700	200	NA ¹	NA	NA	NA ¹	NA
Recreation Center	46,000	1,600	1,400	(200)	5,000S.F.	25/S.F.	125,000
Crafts & Hobbies	11,300	400	1,200	800	-	25/S.F.	0
Other activities, events	10,000	300	NA	NA	-	NA	0

NA means not applicable.

¹ Nature activities are conducted outside the jurisdiction (i.e., in National Parks, other public open space). Effectively, no concern with facility capacity. Average costs based on cost of leadership only (\$2-\$6/hour).

Source: McDonald & Smart, Inc.

TABLE 4.06-5

COST ESTIMATE USING FACILITY PLANNING STANDARDS

Projected Additional Population: 4,000 people

<u>Facility</u>	Facility Requirements			
	<u>Planning Standard (Population Per Unit)</u>	<u>Units Required</u>	<u>Average Cost</u>	<u>Total Cost</u>
Playlots	2,000	2	\$ 21,000	\$ 42,000
Neighborhood Parks	5,000	1 ¹	\$225,000	225,000
Baseball Diamonds	6,000	0 ¹	n.a.	-0-
Softball Diamonds	3,000	1	30,000	30,000
Tennis Courts	2,000	2	20,000	<u>40,000</u>
			Total	\$337,000

¹Policy decision based on incremental supply, demand, and deficit in the area.

Source: McDonald & Smart, Inc., based on National Park, Recreation and Open Space Standards.

and diseconomies of scale of an individual project are, and so on. Table 4.06-6 contains an example as a guide. Each of the line items in the Table would have been the subject of a departmental budget estimate.

Method D: Cost Standards

This is an indicator method for estimating annual operation and maintenance expenditures. It represents average costs per acre for operation and maintenance of different types of parks and is derived from the actual budget experience of the district. While a district may not follow a program budget format or other format that would explicitly segregate costs by type of park, district records will generally show annual manpower assignments to its various parks and facilities. From these, the district director or the analyst can estimate the proportion of costs allocated to the different types of parks located in the district: assuming that manpower represents about 75% of the operational budget, the analyst would calculate 100% of the operating costs for each type of park and then divide that by the district's total acreage in each type of park to arrive at an average cost per acre per year.

Table 4.06-7 shows average costs per acre for neighborhood and community parks based on the budget experience of Southgate Park and Recreation District and average costs per acre for wilderness or open areas based on interviews with Southgate, Fair Oaks, and North Highlands Park and Recreation districts.

4.06.5 REVENUES

The relationship between costs and revenues for park and open space preservation and development is an unusual one. In most

TABLE 4.06-6

OPERATIONS AND MAINTENANCE COST ESTIMATES
BUDGET DETAIL APPROACH

	FISCAL YEAR		
	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
PROGRAM			
Parks Area Maintenance	125 acres	150 acres	150 acres
Maintenance of Median Strips	3 miles	4 miles	4 miles
Tennis Court Maintenance	14 courts	18 courts	18 courts
Recreation Programs	10 activities	10 activities	10 activities
COSTS			
Personnel (full-time equivalent)	35.53	45.64	46.24
Employee Expense	\$197,000	\$276,300	\$287,000
Supplies	32,600	31,500	35,500
Services	<u>32,900</u>	<u>40,500</u>	<u>44,000</u>
Total	\$262,500	\$348,300	\$366,500

Source: McDonald & Smart, Inc.

TABLE 4.06-7

OPERATIONS AND MAINTENANCE COST ESTIMATES¹
AVERAGE COST APPROACH

<u>Facility Type</u>	<u>Standard Cost (per ac. per yr.)</u>	<u>Total Annual Cost</u>
Neighborhood Parks 10 developed acres	\$10,000	\$100,000
Community Parks 25 developed acres	10,000	250,000
Regional Wilderness total 100 acres	60	<u>6,000</u>
Total		\$356,000

¹Includes salaries, benefits, services and supplies, equipment and miscellaneous items.

circumstances and during most years, the basic source of financial support is locally collected revenues (general fund revenues for cities and counties and a property tax for special districts). The initial mechanisms can be dedications, fees, and, for large-scale expansion, a general obligation bond issue.

As a matter of policy in Sacramento County, all residential subdivisions are subject to the Park Dedication ordinance requiring a mandatory dedication of land or fees or a combination of the two for recreational areas. This stipulates that subdivisions having 50 lots or more should dedicate land according to:

(1) Single family areas formula:

$$Dl \times 0.008 = Al$$

(2) Multiple family areas formula

$$Dm \times 0.005 = Am$$

Dl = Number of dwelling units in single family area.

Dm = Number of dwelling units in multiple family area.

Al = Amount of land in acres required for dedication in single family area.

Am = Amount of land in acres required for dedication in multiple family area.

For subdivisions having less than 50 lots, or where land for local parks cannot be dedicated within the subdivisions, or where other more suitable land is available as determined by the commission on advice of the district, the following in-lieu fee formula applies:

$$A \times V = M$$

A = Amount of land in acres that would be required with application of formulas (1) and (2) above.

V = Full cash value per acre of the property to be subdivided as determined by the latest equalized assessment rolls.

M = Dollars to be paid as the in-lieu fee.

Credit is allowed for private open space and recreational facilities within the subdivision. Calculation of credit may be in acres or comparable in-lieu fees and is subtracted from the required dedication acreage or fees.

In addition to local revenues, there is a continuing source of financial support from the Land and Water Conservation Fund, a federal grant program funded by federally collected fees and user charges that then are dedicated to park and recreation purposes. This program is administered by the State of California. Other state programs offer limited revenues for off-highway vehicle activities¹ and a program to reimburse local government for the revenue that is lost when open space lands are taxed at the market value appropriate to an open space use rather than at their highest and best use if development were permitted.² These grant programs are significant but not major sources of financing.

The important exception to park and open space preservation being primarily a locally funded activity is a history of periodic³ state bond issues that include a program of grants

¹The Chappie-Z'berg Off-Highway Motor Vehicle Act of 1971.

²The Williamson Act, which permits open space lands to be taxed on the basis of use and the Open Space Subvention Act, which reimburses local government for lost revenues.

³Recent examples were the 1974 Collier-Unruh Park Bond Act and the Z'berg-Collier Park Bond Act which provided for grants to local government as well as for state purchases.

to local governments for park acquisition and development. State park bonds have contributed major amounts of revenues on occasions when both state and local priorities were focused on park projects and when major acquisitions and development programs were successfully undertaken.

Recreation programs and maintenance of parks and open space lands are supported primarily by local revenues. Historically, user charges in Sacramento County districts have seldom covered as much as 25% of the annual operations and maintenance expenses of local agencies.

4.07

WATER SYSTEMS

4.07.1

THRESHOLD

WATER PURVEYORS HAVE A PRICING STRUCTURE THAT PERMITS THEM TO ALLOCATE COSTS TO THE USERS AND TENDS TO MINIMIZE THE FISCAL IMPACT OF DEVELOPMENT. DEVELOPERS PAY FOR IMPROVEMENTS NECESSARY TO "TIE" INTO THE EXISTING SYSTEM. IMPROVEMENTS TO EXPAND CAPACITY ARE PAID FOR BY USER CHARGES. THE PRIMARY CONCERN IS THE ABILITY OF THE WATER PURVEYOR TO SERVE THE DEVELOPMENT WITH AMPLE QUANTITIES AND FLOWS. BEYOND THIS INFORMATION, ESTIMATES OF COSTS ARE NOT WARRANTED. IF THERE IS CONCERN FOR OVERALL RESOURCE ALLOCATION, AS MIGHT BE CONSIDERED IN THE EVALUATION OF GENERAL PLANS, THE EXPENDITURES OF RESOURCES NECESSARY TO EVALUATE CONSTRUCTION, OPERATION, AND MAINTENANCE COSTS TO BE INCURRED BY THE ALTERNATIVE SYSTEMS WOULD BE WARRANTED.

4.07.2

WATER SERVICE

In Sacramento County, water is provided by thirty-one different entities including private or mutual companies, dependent districts, and independent political subdivisions. Each has its own system with its own revenue and operating cost structure. A complete list of all water service agencies is shown in Table 4.07-1. The Sacramento Local Agency Formation Commission report, a report on the sphere of influence of districts in Sacramento County, contains a description of each agency.

Water service is provided by a fixed network system requiring capital in immediate proximity to users. Any development will be tied into the system so that physically discrete parts of the system may be unambiguously identified with the property

WATER SERVICE AGENCIES AND COMPANIES IN SACRAMENTO COUNTY

Arcade County Water District
P.O. Box 214317
Sacramento, California

Arden Park Vista Water Maint. Dist.
827 Seventh Street
Sacramento, California

Arden-Cordova Water Service (Company)
10667 Folsome Boulevard
Rancho Cordova, California

Arvin Water Company
5807 Manzanita Avenue
Carmichael, California

Carmichael Irrigation District
7001 Fair Oaks Boulevard
Carmichael, California

Citizens Utility Company of California
3335 Longview Drive
North Highlands, California

Citrus Heights Irrigation District
6230 Sylvan Road
Citrus Heights, California

Clay Water District
901 H Street
Sacramento, California

Del Paso Manor County Water District
4268 Lusk Drive
Sacramento, California

Dunsmovin Heights
2701 Creekside Lane
Sacramento, California

Elk Grove Water Works (Company)
8834 Elk Grove Boulevard
Elk Grove, California

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California

Fair Oaks Irrigation District
10148 Fair Oaks Boulevard
Fair Oaks, California

El Ranchito Mutual Water Company
5744 Edmunds Way
Sacramento, California

Florin County Water District
P.O. Box 28177
Sacramento, California

Fruitridge Vista Water Company
P.O. Box 4848
Sacramento, California

Hood Improvement Company
P.O. Box 91
Hood, California

Galt Irrigation District
P.O. Box 187
Herald, California

Grove Water Company
P.O. Box 437
Walnut Grove, California

Linwood Water Maintenance District
872 Seventh Street
Sacramento, California

Natomas Central Mutual Water Company
2601 Elk Horn Boulevard
Sacramento, California

Northridge Park County Water District
5331 Walnut Avenue
Sacramento, California

Northgate 880 Water Maint. Dist.
827 Seventh Street
Sacramento, California

Omochumne-Hartnell Water District
Route 2, Box 2254
Elk Grove, California

Orangevale Mutual Water Company
P.O. Box 195
Orangevale, California

Rio Linda County Water District
730 L Street
Rio Linda, California

Sacramento County Water Agency
827 Seventh Street
Sacramento, California

San Juan Community Service District
9560 Suburn Folsom Road
Roseville, California

Southwest Tract Water Maint. Dist.
827 Seventh Street
Sacramento, California

Valley Hi Water Maintenance District
P.O. Box 28206
Sacramento, California

served. With the exception of the need to upgrade the overall system capabilities, the capital cost of extending water service can be attributed to specific site developments.

4.07.2.1 Factors Affecting Costs

For any development, the capital costs and operating costs are a function of three factors:

- . Water system requirements.
- . Existing system capabilities.
- . Factors affecting incremental resource requirements.

The demands placed on the system and the capabilities of the system to meet these requirements are the prime factors affecting capital and operating costs. Factors such as system configurations, spatial relations, and geological and physical considerations will play important roles in determining overall costs of meeting the increased demands. A discussion of each factor is presented below.

4.07.2.1-1 Water System Requirements

Water system requirements refer to both the quantity of water needed for consumption and the rate of flow at which the water must be delivered. Household use varies between days and between months with peak demands several times larger than the average. Additionally, fire suppression can necessitate a large volume of water for short periods on top of normal demands. A water system must be able to meet all of these needs if it is to serve a community adequately.

Water requirements are specific with regard to the nature and size of the development. Just as different industrial processes require different amounts of water, the size and structure of a housing development will affect the number of residents and how much water will be used. By identifying basic units of demand and applying appropriate unit water factors, estimates of these requirements can be determined. The following sections examine these factors of demand and their relationship to water requirements.

4.07.2.1-2 Water Duty Factors

Industrial and commercial consumption is very specific to the industrial or commercial use. Food processing will use very large quantities of water compared to an electronics firm which may use no more than a retail establishment. Estimates of demand must be made on a case-by-case basis; however, some averages are presented below.¹

	<u>South San Francisco</u>	<u>Los Angeles</u>
Business	1,235 gal/day/customer	1.048 gal/day/customer
Industrial	19,238 gal/day/customer	

Consumption estimates by employee for different industries are listed in Table 4.07-2.

Residential uses of water have been well-documented.² Linna-weaver & Geyer's Study of Residential Water Use reported

¹In Sacramento County, many industrial and commercial users are metered. The Sacramento County Department of Public Works, Water Quality Division, is presently studying the relation between water consumption, wastewater discharge, and various characteristics of commercial or industrial customers for development of a wastewater rate structure. One result of this study will be the relation of water consumption to the characteristics of commercial and business customer.

²See Real Estate Research Corporation, The Cost of Urban Sprawl; Detailed Cost Analysis, U.S. Government Printing Office, April, 1974.

TABLE 4.02-2

QUANTITY OF WATER USED BY MANUFACTURERS

[Data gathered for manufacturing establishments with 6 or more employees. Adapted from Reid, 1971, p. 250-251]

Industry Group	Number of employees	Annual water intake (billions of gal)	Gallons per employee per day (thousands)	Intake water appear- ing as waste- water (percent)
Processing Industries:				
SIC				
20 Food and kindred products ----	1,589,380	812	1.400	91
24 Lumber and wood products ----	489,351	161	1.146	82
26 Paper and allied products ----	583,234	2,078	9.762	94
28 Chemicals and allied products --	734,261	3,899	14.584	94
29 Petroleum and coal products ---	152,470	1,400	25.157	94
30 Rubber and plastic products ----	406,777	168	1.439	95
32 Stone, clay, and glass products --	550,451	264	1.434	88
33 Primary metal industries -----	1,122,911	4,587	11.196	94
Weighted average -----	-----	----	<u>6.507</u>	--
Fabricating Industries:				
SIC				
21 Tobacco products -----	76,989	4	.168	67
22 Textile mill products -----	854,543	158	.644	91
25 Furniture and fixtures -----	360,882	8	.079	94
31 Leather and leather products ---	322,747	20	.215	94
34 Fabricated metal industries ----	1,058,954	76	.249	93
35 Machinery, except electrical ----	1,424,432	172	.421	95
36 Electrical machinery -----	1,502,324	114	.264	87
37 Transportation equipment -----	1,593,285	252	.551	95
38 Instruments and related products	301,650	31	.363	90
39 Miscellaneous manufacturing --	371,858	19	.175	93
Weighted average -----	-----	----	<u>.378</u>	--

Source: J. Feth, "Water Facts and Figures for Planners and Manager," Geological Survey Circular 601-1, Washington, 1973.

apartments averaged 191 gallons per unit per day while single family homes average 310 to 458 gallons, depending on the climate. Apartments consume less water for lawn sprinkling and other uses. Based on this study, Real Estate Research Corporation made the following estimates of average daily consumption for its study, "The Cost of Urban Sprawl."

	Consumption Per Day (Gallons)
Single family home	330
Single family home, clustered	290
Townhouses, clustered	250
Walk-up apartments	200
High-rise apartments	175

The differences were based on relative needs for lawns, etc., as well as differences in average household size.

In Sacramento County, water service deliveries to single family residences are generally not metered. Estimates of water consumption by household or dwelling type are limited to a few studies of specific areas within the county. Alternatively, water districts can make estimates of per capita consumption. The City of Sacramento, Division of Sewers and Water, uses an average consumption figure for their system of 260 gallons per capita per day. Their 1970-71 annual report indicated an average consumption of 283 gallons per capita per day for their fiscal year.

James M. Montgonery, Inc., consulting engineers, in their report on water system developments for the City of Sacramento indicated a consumption equivalent to an average of 255 gallons per capita

per day. Murray-McCormick Environmental Group reports that this Montgomery study of a three-square mile area within the City of Sacramento produced results which agreed closely with data developed earlier by the Johns Hopkins University¹ in a study of a smaller Sacramento residential area. The results of the Montgomery study are reported in Table 4.07-3. A later study (1972) by Montgomery, "The Sacramento County Water Resources Planning Study," gives annual consumption equivalent to an average of 283 gallons per capita per day.

TABLE 4.07-3

WATER DUTIES, CITY OF SACRAMENTO

<u>Land Use Classification</u>	<u>Water Duty Ac. Ft/Ac/Yr</u>
Residential	
Low Density	3.8
Low-Medium Density	3.8
Medium Density	4.1
Mobile Home Park	4.1
Commercial and Retail	1.5
Civic Facilities	2.0
Schools	2.6

Source: Murray-McCormick Environmental Group, "Water Systems Investigation in the Northridge Park County Water District," January, 1974.

The Northridge Park County Water District study by the Murray-McCormick Environmental Group used an average annual consumption

¹Johns Hopkins University, "A Study of Residential Water Use," Baltimore, Maryland.

of 270 gallons per person per day. For the purposes of their study, they adopted the earlier water duty factors estimated by Montgomery. Some water consumption estimates are presented below.

TABLE 4.07-4

WATER CONSUMPTION ESTIMATES

Arcade County Water District ¹	3	gal/minute/customer
Fair Oaks Irrigation District ¹	1	acre foot/year/family of five
Northridge Park (1972)	272	gallons/capita/day
East Bay Municipal Utility		
East District	175.4	gallons/capita/day
West District	86.3	gallons/capita/day
Marin Municipal Water District		
1970 estimate	170	gallons/capita/day
1974 estimate	148	gallons/capita/day
Citizens Utility of California ¹	1,700	CF/month/single family dwelling unit

¹Based on information obtained by McDonald & Smart, Inc. from interviews with the district.

While specific data relating to land use factors may not be available for the Sacramento area, water duty factors by land use type can be estimated on the basis of applying per capita per acre definitions to different residential land uses. Planners need only define land use activities on the basis of housing density and average household size. With the exception of industrial and commercial uses which require specific information, application of estimated per capita consumption to these density figures will result in water duty factors by land use category.

4.07.2.1-3 Variations in Demand

The water system must be capable of meeting peak hour demands as well as day-to-day variation in demand for water. People typically use more water early in the day and in the evenings. In the Sacramento area, average monthly use increases during the summer months as more water is used for lawns. (See Figure 4.07-5.)

The variation in demand can be sizable. The City of Sacramento uses a factor of 1.85 times the average daily demand in order to determine peak day demand and a factor of approximately 3.15 times the average daily demand to determine the peak hour demand. The Johns Hopkins University study for HUD indicated that, in the forty-one areas studied, the maximum daily domestic demand ranged from 111% to 236% of annual domestic demand while the maximum hourly ranged between 181% and 1360% of the annual average. The North Ridge Park County Water District Study estimated the peak hour flow to be 3.36 times the average annual flow.

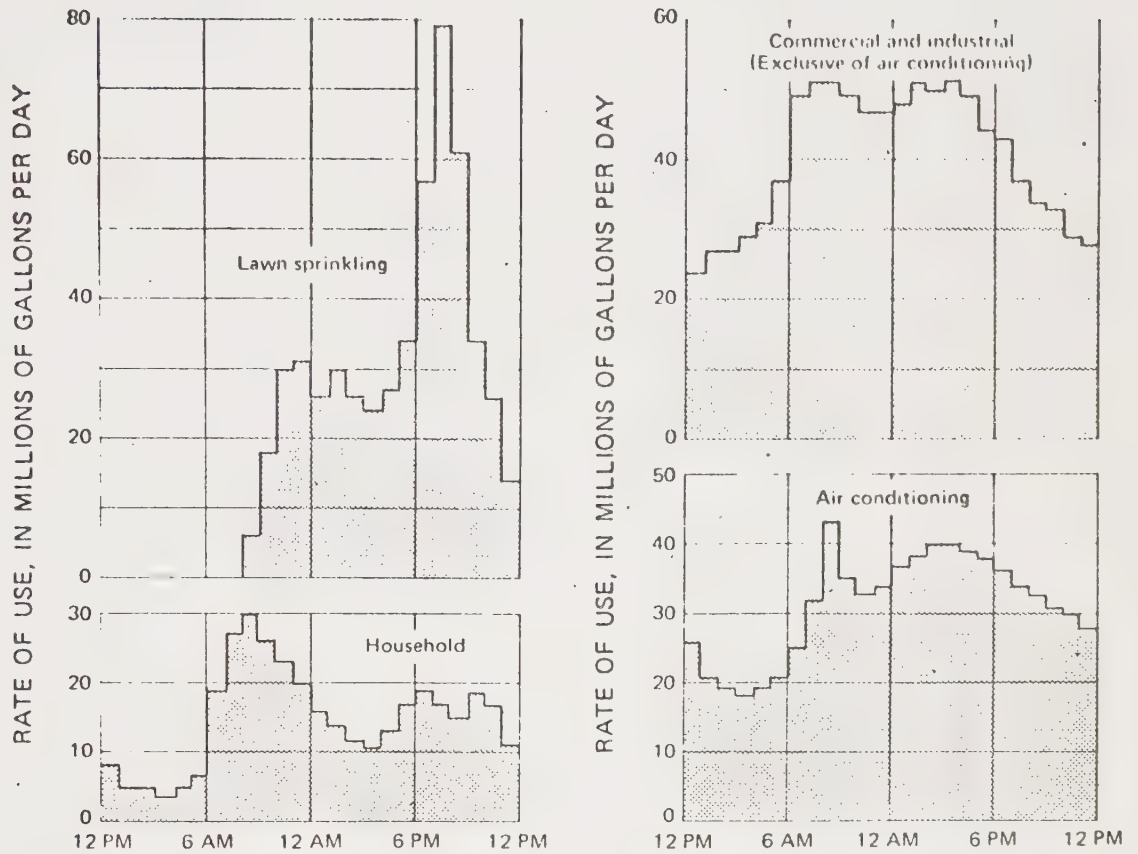
The water system for any new development will have to consider these variations in the consumption of water. General design considerations will provide for adequate size mains between the development and existing system. But problems could occur if wells do not have adequate flows to handle the peaks and sufficient storage is not available or if the existing network was not designed for growth in the direction of the development.

4.07.2.1-4 Fire Flows

Fire flow is the additional capacity beyond maximum daily consumption needed to meet specific firefighting requirements.

FIGURE 4.07-5

HOURLY TRENDS IN WATER USE



—Hourly trends in water use on maximum day (July 12) of use in 1954 of public water supply of Kansas City, Mo. Based on data prepared by M. P. Hatcher for 1955 conference of American Water Works Association (from Savini and Kammerer, 1961, p. A13).⁴

Source: J. Feth, "Water Facts and Figures for Planners and Managers," Geological Survey Circular 601-1, Washington, 1973.

The water supply and system constitutes 39% of the fire insurance rating, so adequate fire flow requirements based on insurance ratings will affect fire insurance premiums.

Fire flow requirements are established by the Insurance Services Office (Table 4.07-6). The requirements include both a rate of flow and a duration of flow.¹ Generally, a rater will go to an important district and determine the required fire flow for each of three or four buildings requiring the highest flows in the small area. Characteristics such as physical construction and the use of building as well as adjacent buildings are considered. These individual flows then are averaged to determine the required flow. Changes in building use will change the fire flow requirements.

TABLE 4.07-6

FIRE FLOW REQUIREMENTS

Heavy commercial	6000 gpm ¹
Other commercial	4000 gpm
Very high density apartments	3000 gpm
Apartments	2000 gpm
Single family residences	1000 gpm

¹Gallons per minute.

4.07.2.2 Existing System Capabilities

The capacities and the distribution pattern of the existing water system will affect the cost of providing service to a new project

¹The duration requirement provides that the fire flow duration be at least one hour for each 1,000 gpm requirement but no less than two hours.

or development. If the system is capable of delivering the water at the flows required, the actual cost of servicing the new development may be relatively low; however, the district will charge an average cost to the new development for providing the water supply. The development need only be tied into the system. No new wells would need to be drilled, and existing mains would not have to be increased in size. In districts which have neither adequately planned for growth nor planned for replacement of deteriorating equipment, the initial cost for development in these cases could be quite high.

Analysis of a system's capability is a complex process. Capacity is not just the size of reservoirs and treatment plants but is based on the total configuration of the system and the maximum flows at all points throughout the system. Total well capacity may indicate ample water supply yet, because of constraints on flow within the system, this total supply may not be available to the development. Deterioration of pumps, tuberculation of pipes, may also reduce the capacity of the system below its assumed rates capacity. A preventive maintenance and operation program will minimize this deterioration. All of these factors need to be evaluated in determining the capacity of the system to handle the new development or project. If the water district has done a comprehensive long-range engineering and capital program study, most of the necessary information to evaluate the system will be available.

4.07.2.3 Factors Affecting Incremental Resource Requirements

Analysis of the demand requirements and the capabilities of the existing system (including additional sources of supply) will form the basis for evaluating the resource requirements needed to tie the proposed development into the existing system and meet

its water requirements. Basically, these resources are identified as capital requirements.

4.07.2.3-1 Capital Requirements

The capital requirements can be separated into three functional categories to isolate location cost differentials as well as facilitate discussion on future system needs and the burdens of financing the improvements. The categories are:

- (1) The distribution system within the development (minimal cost differences can be expected between similar locations).
- (2) The system required to tie in the development to the existing network (fill-in developments should show relatively lower costs than leapfrog developments).
- (3) The requirements to provide the system capabilities (available capacity may be a function of location).

The costs for the distribution system within the development and for tying the development into the existing network are basically a function of the lengths of the mains, the number of service connections, requirements for fire hydrants and valves, and the resources required to install these items. The physical layout of the development and its distance from the existing network will determine the length of pipe required. The size of the pipe will be determined by the demand requirements of the development, while components such as fire hydrants are usually spaced in relation to housing densities.

Installation cost depends on a variety of factors: labor costs, the slope, the terrain, the soil conditions, and other factors

that are fairly site specific. Estimates of the total cost of hookups can be made from the development plan although installation costs will vary with site conditions.

For some districts, capital requirements to improve systems capabilities will be minimal. The high water table in much of the Sacramento County means a relatively low cost for new water. Wells often can be drilled at regular spacing to fill in the areas served as new demands appear. Districts served by the San Juan water district need only contract for greater quantities of surface water in order to meet increased needs. For these districts, no additional capital costs are required to increase water supply, since these are built into the average cost figures.

The cost of upgrading a system's capabilities is difficult to estimate. Mains may have to be replaced with larger pipe, new wells drilled, or transmission mains constructed to deliver alternative water sources. Specific recommendations must be based on a complete analysis of the existing system.

4.07.2.3-2 Operating Requirements

Operating requirements will differ between water districts and will depend to some degree on the amount of water used.¹ For incremental development within the district, overhead costs should be considered fixed; they will not change with the level of service. (Billing costs, although based on the number of customers, are small and will not have a significant effect on operating costs.)

¹Per unit cost of water depends on whether the water is purchased or has to be pumped. Water quality will affect the level of treatment required.

Maintenance costs are related more to the age of the system than to its size. Most maintenance is for the replacement of old, worn out or damaged pipe. New pipe, more immune to corrosion and tuberculation, will have very minimal maintenance requirements.

4.07.3 EXISTING COST ALLOCATION

The operating practices and procedures of the water districts typically specify that the developer must pay for the cost of extending the distribution system into his development. This includes the construction of water mains as well as service connections. These costs then are passed onto the buyers through higher prices or through liabilities to an assessment district. The developer may also be reimbursed with revenues generated from fill-in developments along the constructed main.

Once the extension of the system has been accepted by the district, it is responsible for continuing operation, maintenance, and facility replacement, and their financing. Except where the district might have to secure new water sources to serve this and other extensions, operation and maintenance of the extension are initially very low, consisting primarily of preventive maintenance, such as inspection of lines, pump operation, and repair of infrequent leaks or breaks. As the system ages, replacement of lines will eventually become necessary, and is normally financed by a depreciation fund set aside in the district's accounts. All of the above costs are as a rule financed by users' fees rather than property taxes. (Residential users are charged a flat rate while other users are sometimes metered).

This allocation of costs has an important effect on the timing and location of development. Since the developer pays the cost of constructing the mains, the water district has, rightfully,

little concern for the location of the development in relation to its existing system. However, the water department will specify design standards for typical grid patterns for developments. Given the market for the development, the developer has to trade off the high costs of servicing the location with profit margins. Leapfrog developments only become less likely to be developed if the developer does not have sufficient "front-end" money for construction or strong expectations of rapid fill-in developments where he can recover the capital costs that he is unable to pass onto the buyers.

The cost structure also does not provide for efficient use of water. While the rate structure is intended to provide, on the average, an equitable distribution of the cost among the users, nearly all districts charge a flat rate for residential units¹ while metering some commercial and industrial users. Flat rate users have little incentive to reduce water use. With low water costs, metering is relatively too expensive to initiate and provide the incentive for more efficient use. The Sacramento Area Waterworks Association sponsors a consumer awareness program in the summer months aimed at efficient use of water.

1

In some cases, an acreage fee is charged in addition to the hookup. Homes with larger lots are expected to irrigate more and, therefore, are required to pay a higher fee.

THE FISCAL IMPACT ON THE REGIONAL WASTEWATER DISTRICT WILL, IN GENERAL, BE MINIMAL. THE SYSTEM IMPROVEMENTS ARE DESIGNED TO ADEQUATELY HANDLE WASTEWATER THROUGH THE YEAR 2020. DEVELOPERS PAY FOR ONSITE IMPROVEMENTS, UP TO THE TRUNK LINES. TREATMENT WILL BE PAID FOR BY USER FEES, AND TRUNK LINES ARE FINANCED BY CONNECTION FEES.

PROCEDURES TO ESTIMATE ACTUAL RESOURCE COSTS OF ANY WASTEWATER TRANSPORTATION NETWORKS REQUIRE ENGINEERING ESTIMATES AND SPECIFIC SITE DETAILS. THEN, PROCEDURES ARE ONLY RECOMMENDED IF THE EVALUATION CALLS FOR COMPARISONS OF RESOURCE ALLOCATIONS BETWEEN ALTERNATIVE SYSTEMS.

In 1973, the Sacramento Regional County Sanitation District was established to serve all of the sewerage needs of the urbanized Sacramento area. The Water Quality Division of the Sacramento County Department of Public Works is implementing the Regional Wastewater Management Program. This program is designed to meet the needs of the urbanized area through the year 2020 through the staged construction of interceptors and a treatment plant. A \$75,000,000 bond issue was authorized in June, 1974 to finance the local share of the first stage of construction scheduled for completion in 1980. Federal and state funds estimated at \$193,000,000 will also be available for this initial construction phase.

At the time of the formation of the Regional District, there were seventeen separate districts to provide wastewater treatment. However, more stringent wastewater discharge requirements

recently adopted by the State of California through the Central Valley Regional Water Quality Control Board presented compliance problems at some of the plants. Studies indicated that greater efficiencies could be achieved through consolidation of the separate systems into a single treatment facility. Staged development allows the system to grow as disposal needs expand.

4.08.3 SERVICE DEMANDS

The Sacramento County Department of Public Works Improvement Standards provides criteria for the engineering design of sanitary sewers. The design criteria specify standards for estimating service demands and establish the engineering requirements to meet these demands. Average flows are first determined from which the design flow can be estimated through the use of peaking factors. The design flow is then used to determine pipe capacity. Factors such as manhole spacing, pipe location in relation to public rights-of-way, and pumping station design are also considered in the design criteria.

Flow determination is based upon the most recent zoning with the minimum population density equivalent to that of single family zoning. If trends indicate increasing population concentrations and/or more than four lots per acre, estimates should be made of the probable extent of such concentrations. The flow determination for various types of development are listed below. They assume a normal amount of infiltration. Design flows are then computed from these estimates with the use of peaking factors.

1. Single family detached units: 400 gallons per residential unit per day with a minimum of four lots per acre.
2. Single family planned unit developments: the flow per unit will be the same as the single family detached unit. In the absence of known data, the density will be assumed to be 12 units per acre.
3. Commercial and multiple residential: if the scope of the improvements is known, the average flow from a single bedroom multiple residential unit is assumed to be 200 gallons per day per unit; from two bedroom units, 300 gallons per day; and from three or more bedroom units, 400 gallons per day. Mobile home flows are estimated at 300 gallons per day per unit.
4. Schools: the larger flow as determined from one of the two following methods:
 - a. The entire school area is assumed to contribute 1,600 gallons per acre per day.
 - b. The average daily flow per school based on the type of school proposed, with the indicated limits of ultimate design, reflecting student population plus administration, teaching, and operating personnel.

<u>Type of School</u>	<u>Average Daily Flow</u>	<u>Capita Limit</u>
Elementary (K-5, K-6 or K-8)	0.025 mg	1,000
Upper Elementary (6-8, 7-8 or 7-9)	0.060 mg	1,500
High School (9-12 or 10-12)	0.080 mg	2,000

For enrollment and personnel in excess of that indicated, add 25 gallons per day per additional capita in elementary schools and 40 gallons per day per additional capita in upper elementary and high schools.

5. Industrial: every attempt should be made to base flows on specific known industrial development.

4.08.4 SYSTEM REQUIREMENTS

The Regional Program is designed with consideration for needs until the year 2020. Once the new regional treatment plant and necessary interceptors are constructed, additional requirements to serve "fill-in" developments will be minimal. The extension serviced presently to undeveloped areas will require trunk line construction and, ultimately, plant expansion and second stage interceptor construction. Design requirements are site specific, and must be based on engineering estimates.

4.08.5 CONSTRUCTION COSTS

Pipeline construction costs are specific to site conditions with cost variations due both to the engineering design required by the site and installation costs. The analyst should therefore look to the developer for specific costs.

4.08.6

OPERATING COSTS

Differences in operating costs throughout the county will be eliminated with the consolidation of the treatment facilities into a single plant. Operating costs attributed to specific users or specific developments have not yet been estimated. The Regional District presently is undertaking a study to identify amounts of discharge associated with specific commercial and industrial activities. From estimates of treatment plant operating and construction costs, costs to specific users and developments can be estimated by prorating these costs on the basis of expected discharges.

4.08.7

EXISTING COST ALLOCATION

Capital costs of the pipeline system are allocated on the basis of pipe size. The Regional County Sanitation District, through its contributing agencies, will finance the cost of trunk line (pipes 12" in diameter or larger) extensions from connection fees. The cost of 10" and smaller pipeline construction is the responsibility of the developer.

The connection fees that will finance the estimated \$30,000,000 in trunk lines necessary to provide service to lands within the urban area will be collected according to the following fee schedule:

1. Single family residence: \$125 each.
2. Multi-family residence: \$125 per unit.
3. Hotels, motels with restaurant or with kitchens: \$125 per unit.
4. Hotels, motels, no restaurant or kitchens: \$100 per unit.
5. Hospitals: \$125 per bed.
6. Dormitory or boarding house: \$20 per occupant.
7. Industrial or other areas contributing in excess of 48,000 gallons per acre per month based on peak month: \$0.0125 per gallon of discharge during peak month.
8. Elementary schools: \$3 per student.
9. Junior high schools, high schools, and colleges: \$5 per student.
10. All other areas: \$600 per acre.

If the development requires the construction of a 10" or smaller outfall line to reach an existing system, the District enters into a reimbursement agreement based on collecting "in-lieu of construction" fees from developers of intermediate properties who are able to utilize the outfall.

The local share of the capital costs of the treatment plant and interceptors will be funded by general obligation bonds. This debt will be serviced through charges to all users. Capital investment equalization fees will be charged to anyone connecting the system subsequent to January 1, 1976. This fee is a charge for having sufficient capacity available for the development.

A schedule of users' fees will be developed to reflect actual cost of use by different types of users. The basic unit will be the amount of disposal by a single family residence. The use study now being conducted by the District will determine the amounts of disposal for different types of business relative to the single family unit. The fee schedule for regional and contributing agency costs will be set to reflect these differences.

4.09

STORM DRAINAGE

4.09.1

THRESHOLD

STORM DRAINAGE CONSTRUCTION IS FINANCED BY DEVELOPMENT FEES. ACTUAL CONSTRUCTION COST MUST BE ESTABLISHED FROM SPECIFIC SITE DETAILS. MOST ECONOMIC ASSESSMENTS DO NOT WARRANT THE EFFORT TO PRODUCE THIS DETAIL UNLESS EFFICIENT RESOURCE ALLOCATION IS THE PRIMARY CONCERN, SUCH AS MAY BE REQUIRED IN PLAN EVALUATION.

MAINTENANCE COSTS ARE AT PRESENT FINANCED BY A PROPERTY TAX FOR WHICH THE RATE IS LIMITED BY S.B. 90. ACTUAL COST OF MAINTENANCE DEPENDS ON SITE SPECIFIC CONDITIONS. ONLY FOR THE PURPOSE OF EVALUATING EFFICIENT RESOURCE ALLOCATION WOULD ESTIMATES OF THEIR COSTS BE WARRANTED.

4.09.2

SERVICE ORGANIZATION AND CHARACTERISTICS

Storm drainage facilities in the unincorporated Sacramento urban area are installed by developers as part of the construction of their projects. Installation is also done by Zone 11 of the Sacramento County Water Agency, funded by development fees, and by the Metropolitan Storm Drain Maintenance District (Metro), funded by taxes. Within cities, the cities themselves play the role of these two agencies.

Zone 11 covers the unincorporated urban area and somewhat beyond, since it is also a planning and regulatory agency. The Metro Maintenance District is somewhat smaller, covering that part of the unincorporated urban area which has drainage for utilities that constitute a common system. A few areas have separate local drainage facilities for which there is no clear-cut maintenance responsibility, though it is probable that the Metro district will eventually assume this job. In addition to maintaining the system, the district carries out minor reconstruction.

All facilities in the unincorporated area, whether privately or publicly installed, are constructed in accordance with the improvement standards of the county Public Works Department. Within Zone 11, which administers these standards, gravity surface drainage alone is a feasible technique. In other areas (e.g., Natomas), different, more expensive techniques are required, such as de-watering.

Since the volume of runoff can be predicted, storm drainage facilities are designed and constructed to their ultimate size. Therefore, if development is spotty, the improvements will be oversized for a period of time until the particular area is fully developed.

Ideally, the improvements of a storm drainage system begin at the lower end and progress upstream, but development often does not occur in this pattern. The downstream channel improvements have to be made whether a high area or a low area develops first. Alternative types and timing of development can prevent overloading of downstream drainage facilities. Flood plain management, retention basins, etc. should be considered in connection with development.

4.09.3 COST ESTIMATING

4.09.3.1 Capital Costs

Construction costs vary with site conditions. Costs depend on the relative location and condition of existing waterways, soil conditions, level of the water table, need for pumping plants, etc. Engineering designs based on development plans are required for accurate estimates.

4.09.3.2 Operating and Maintenance Costs

Maintenance costs have been developed by Metro that reflect the differences in drainage system improvements. Stream channels left in their natural state and constructed channels that remain earthen are significantly higher in cost to maintain than piped systems or those where the channel bottom has been paved. Open channels require more frequent cleaning and removal of vegetation which is a very labor intensive operation. Paved channel bottoms permit the movement of heavy equipment through the channel, reducing labor requirements.

4.09.3.3 Cost Allocation

Storm drainage facilities are constructed as required by ultimate upstream development in Zone 11 of the Sacramento County Water Agency. Facilities serving more than 30 acres are financed by fees collected at the time of approval of plans and permits. Smaller scale facilities are paid for directly by the developer.

If the developer proceeds with a portion or portions of trunk facilities in advance of the agency's construction schedule, he can be reimbursed from zone fees in accordance with ordinance #1.

When the developer's other costs are in excess of the fee set forth in the ordinance, he may be reimbursed for the amount he expended in excess of the fees. Costs eligible for reimbursement are computed from unit costs as shown in Table 4.09-1 below. These costs are an indication of average construction costs.

The construction of trunk lines, that is, storm drainage facilities to serve areas larger than 30 acres, is collected from the

TABLE 4.09-1

SCHEDULE "D" - UNIT PRICES FOR ZONE 11 CREDITS

<u>Pipe Size</u>	<u>Reinforced Concrete Pipe</u>	<u>Cast-in-Place</u>	<u>Corrugated Metal Pipe</u>
21"	14.00		
24"	16.00	14.00	
27"	20.50	14.50	
30"	23.50	15.00	16.00
33"	25.00	16.00	
36"	28.00	17.00	23.50
42"	36.00	22.00	28.00
48"	42.00	29.00	36.00
54"	50.00	33.00	42.00
60"	56.00	37.00	50.00
66"	64.00	45.00	56.00
72"	73.00	52.00	65.00
84"	86.00	60.00	80.00
90"	102.00	70.00	88.00
96"	120.00	80.00	94.00

Manhole 48"	\$525
Manhole 60"	775
Manhole 72"	975
Saddle Manhole	625
4-2 Paving	S.F. 0.65
6-6-3 Paving	S.F. 1.00
Channel Lining	S.F. 1.50
Box Manholes (including structure excavation)	200.00 C.Y. of concrete
Structural Ex.	8.00 C.Y.
Chain Link Fence	5.00 L.F.
Barbwire Fence 4 Strand	2.00 L.F.
Channel Excavation	
Virgin Excavation	1.50 C.Y.
Reshaping or Regrading	
Existing Channel	3.50 C.Y.

Source: Appendix 1 of Ordinance No. 1 of the Sacramento County Water System.

developer through a fee schedule. The fee schedule runs as follows:

- . For single family residences, the fee is computed at a rate of \$1,260 per acre for the net area of the site, although the amount due for each single residence will not be larger than \$300 with the balance collected when additional residences are constructed on the site.
- . For a subdivision, parcel, map or land division map that has a density of less than five dwelling units per acre, the fee is computed at a rate of \$1,260 per acre for the net area of the subdivision, but fees in excess of the amount equal to the cost of the drainage facilities required to drain the development will be deferred and not collected until additional building permits for residences in excess of five per acre are issued. The minimum fee will be \$300 per lot.
- . For residential subdivisions with a density of five dwelling units per acre or more, the fee is as above, plus \$20 for each dwelling unit per acre in excess of five. However, the rate will not exceed \$1,460 per acre.
- . For golf courses, parks, cemeteries, and auto wrecking yards, the fee is \$300 per acre for the net area not covered by impervious surfaces, plus \$1,630 per acre for the net area covered by impervious surfaces.
- . For commercial or industrial building, commercial or industrial subdivisions, and other uses of land, the fee will be \$1,630 per acre for the net area of the site.

The cost of maintenance and the reconstruction of inadequate facilities within Metro is financed by a \$0.20 tax rate. At present, this tax rate is inadequate to finance all the necessary and planned maintenance and reconstruction. However, the tax rate is limited by S.B. 90.

4.10

LIBRARY SERVICE

4.10.1

THRESHOLD

FOR THE PURPOSES OF ECONOMIC ASSESSMENT, THE ANALYST SHOULD BE AWARE THAT A DETAILED LIBRARY SERVICE IMPACT ANALYSIS IS NOT REQUIRED IN MOST SITUATIONS. FOR REASONS CITED BELOW, SOME PROJECTS WILL REQUIRE DETAILED ANALYSIS. IN THESE CASES, THE CHARACTERISTICS OF THE PROJECT MAY INDICATE PARTICULAR SERVICE DEMANDS AND IN ALL CASES WILL REQUIRE RELATING THE PROPOSED PROJECT TO THE MASTER PLAN TO CHECK FOR CONFORMITY AND ASSESS POTENTIAL COST/REVENUE IMPACTS (GENERALLY ASSOCIATED WITH NON-CONFORMING PROJECTS),

MOST PROJECTS WILL NOT HAVE AN IMPACT IN LIBRARY SERVICES SUFFICIENT TO JUSTIFY DETAILED ESTIMATES OF DEMAND, SERVICE PLANS, AND COSTS. THIS FACT, TOGETHER WITH THE RELATIVELY LOW PUBLIC COST OF LIBRARY SERVICES, USUALLY OBVIATES LIBRARIES RECEIVING SEPARATE TREATMENT IN EIR'S OTHER THAN AN INDICATOR ESTIMATE OF PER CAPITA COSTS.

PROJECTS THAT WOULD REQUIRE MORE DETAILED ANALYSES INCLUDE:

- . LARGE SUBDIVISIONS LOCATED MORE THAN TWO MILES FROM AN EXISTING/PLANNED BRANCH LIBRARY. THESE REPRESENT NEW DEMAND OUTSIDE AN ESTABLISHED SERVICE AREA, IMPLYING EXPANSION OF THE SERVICE AREA, NEW FACILITIES, MOBILE SERVICES OR A LOWER LEVEL OF SERVICE.
- . LOW-INCOME RESIDENTIAL PROJECTS. HISTORICALLY, THESE HAVE DEMANDED LESS FROM LIBRARIES, RECEIVED LESS, AND COST LESS. SPECIAL PROGRAMMING IS USUALLY REQUIRED TO ENCOURAGE USE AND BOOST CIRCULATION AND SERVICES TO THE AVERAGE COUNTYWIDE LEVEL.

- RESIDENTIAL PROJECTS PROPOSED FOR NEW RESIDENTIALLY ZONED LAND OR OTHERWISE INCONSISTENT WITH THE COUNTY GENERAL PLAN ON WHICH THE LIBRARY MASTER PLAN IS BASED. UNANTICIPATED DEMAND IMPLIES "EXTRA" COSTS OR SHIFTS IN QUALITY. IF RESIDENTIAL DEVELOPMENT OCCURS IN UNEXPECTED PLACES, THE LIBRARY AS A FIXED MODE SYSTEM FACES THE PROBLEM OF LACK OF FACILITIES IN ONE AREA AND OVERSUPPLY IN ANOTHER.

4.10.2 SERVICE ORGANIZATION

City-county library services in Sacramento are combined in one functional unit, the City-County Library System, which includes the central (city) library and nine city branches plus eighteen county branches. The facilities are listed in Table 4.10-1. In 1966, the city and county library systems began consolidation which should be completed in the near future when the financial structures are completely integrated. The fiscal impact of consolidation is not known at this time; and until it is complete, city and county facilities should be considered separately since their cost/revenue pictures differ. (As illustrated below, per capita costs of city library services are higher.)

A County Master Plan Element for Library Physical Development (March, 1974) was accepted in concept by the County Board of Supervisors and has recently been revised. It outlines a new set of service, facility, and site selection standards to be applied over the next 5 years. The main thrust of the approved plan is replacement of eight existing store front branches with five new community branch libraries as indicated in Table 4.10-2. By completion of the master plan in fiscal year 1977, the total number of county branch libraries will have decreased from the current 18 to

TABLE 4.10-1

SACRAMENTO CITY-COUNTY LIBRARY FACILITIES
March, 1975

Facilities located within Sacramento City.

Central Library with branches:

Belle Cooleage
Del Paso
Gillis
Hagginwood
Martin Luther King (Regional)
McClatchy
McKinley
North Sacramento
Oak Park

Branches located outside the City, but within the County:

Arcade ¹	Foothill ¹
Arden	Galt
Carmichael	Iselton
Citrus Heights ¹	North Highlands
Courtland	Orangevale ¹
Elk Grove	Rancho Cordova ¹
Fair Oaks ¹	Rio Linda
Florin ¹	Southgate ¹
Folsom	Walnut Grove

County community facilities (distribute and collect books only):

Fruitridge
Wilton

¹Slated for consolidation and/or new facilities under County Master Plan Element for Library Physical Development, 1974.

TABLE 4.10-2

NEW COMMUNITY BRANCH LIBRARIES
PROPOSED UNDER COUNTY MASTER PLAN,
1973

Southgate Community Library¹
6132 - 66th Avenue
Sacramento, CA 95823

Serving Southgate/
Florin communities;
present Southgate
facility will be
closed when new
facility is ready.
Florin Branch to be
phased out.

Rancho Cordova Community Library¹
9855 Folsom Boulevard
Sacramento, CA 95827

Present facility will
be closed when new
library is opened.

Sylvan Oaks Community Library¹
6700 Auburn Boulevard
Citrus Hieghts, CA 95610

Serving Citrus Heights/
Foothill Farms Communi-
ties; present branches
will be closed when new
facility is ready.

Fair Oaks/Orangevale Community Library²
11601 Fair Oaks Boulevard
Sacramento, CA 95628

Fair Oaks and Orangevale
Branch will be closed when
new facility is ready.

Arcade Community Library²
2443 Marconi Avenue
Sacramento, CA 95821

Present Arcade Branch
will be closed when
new facility is
completed.

¹Presently under construction.

²Site acquired and architectural design approved.

15. The total amount of square footage available for patron service and branch operations, however, will climb from about 60,000 square feet in 1972-73 to around 100,000 square feet in 1977. Construction of the six new branch libraries will represent a 70% increase in county library space. The master plan further recommends a new bookmobile to serve the eastern part of the County, including rural districts like Sloughhouse, Rancho Murrietta, and new subdivisions outside the community branch library service areas.

4.10.2.1 Master Plan Implications for Service Changes

The Master Plan introduces a new set of standards for eventual countywide application that will raise service levels, first in designated areas where new facilities are planned and eventually in all areas of the County. The target areas for facility expansion represent locales where population increases are expected to be greatest. While the capital improvements will be financed through revenue sharing, an attendant rise in operating expenses is most likely.

Currently, service levels vary throughout the county as indicated by differences among service areas in books per capita, circulation, staffing, the quality of physical facilities, special programs, etc. Although these variations are reflected in different costs per capita among service areas, a single tax rate is applied to all county areas and city library service is financed from the general fund; so service cost differences by areas are not readily identifiable.

4.10.3 LIBRARY SYSTEM IMPACT ASSESSMENT

The following discussion concerns estimating the demand for library services and the fiscal implications for projects that merit separate library impact assessment. For projects that require no separate library assessments, unit costs are

presented in Table 4.10-3 that can be applied to approximate average library service costs.

TABLE 4.10-3

SACRAMENTO CITY-COUNTY LIBRARY EXPENDITURES

	City		County	
	Expenditures Per Capita	Tax Rate Equivalent	Expenditures Per Capita	Tax Rate Equivalent
1970-71	5.47	0.250	3.65	0.196
1971-72	5.90	0.200	4.02	0.210
1972-73	6.54	0.280	4.62	0.250
1973-74	7.32	0.278	5.06	0.218
1974-75 Estimated	8.20	0.307	5.82	0.215

Library systems, as a fixed node system, have fixed capital resources (library buildings) established in various locations and supplemented by mobile capital resources (bookmobiles and arrangements for intra-library loans). The capital facilities and operations of the library are a function of demand, expressed in terms of population, population location, and circulation.

To prepare a detailed service plan for providing library service to a proposed project, the analyst must first estimate demand based on:

- . The project population.
- . Estimate circulation per capita.
- . Special needs of the population (considering age, readership interests, and other qualitative factors).

Then this demand should be related to the existing planned system capabilities which involves;

- . Identifying the library facility which will service the proposed project.
- . Evaluating the capacities and policies of the existing/planned library facility.
- . Preparing a service plan that specifies a required expansion of the existing or planned system to accommodate the project demands.

After the system requirements have been specified, the analyst is ready to prepare a cost estimate.

The following sections discuss existing demand which incorporates the basic standards for provision of service (e.g., library buildings, books, staffing) and means of estimating service costs and revenues.

4.10.3.1 Estimate Project Demand for Library Services

The City-County library system plans to apply the following service facility standards and site selection criteria throughout its jurisdiction. As stated in the Master Plan:

"Each of these County Branches would embody the following main concepts:

"Standards

- Branch size large enough to adequately serve a community of 20,000-50,000.
- Feed a service area with a two mile radius.
- Have a collection of library materials equivalent to two books per service area resident plus magazines, pamphlets and phono discs.
- Employ one full time staff member per 25,000 volumes of annual circulation.

"Facilities

- 400 square feet per thousand population served with an optimum size of 12,000 square feet.
- Multi-purpose room of 1,500-2,000 square feet for use by the target community for 'non-library events' as well as for regular Library programs and exhibits.
- Seating capacity at reading tables should total 75-85 with three additional seats for every 1,000 individuals over the proposed 25,000 service population.

"Site Selection Criteria

- Near main traffic arteries.
- 2 1/2 acre site availability.
- Free standing site, preferably not part of a shopping center."

These standards will apply in estimating demand for service for any given residential project. Non-residential projects are not considered to have direct impact on library service.

In that the master plan for physical development represents a scheme with specific locations for new facilities, in project assessment the analyst must first consider the location of a new project relative to existing/planned facilities and then personnel and materials requirements to serve the project. The key variable in a service plan is public use. This includes circulation, on and off site reference requests and other services. While circulation is the most available indicator of demand, it is not ideal since it is affected by a library's size, location and collection. For the central library, reference services are particularly important and extensive. In socially deprived areas, public use also includes special programs, films, music, etc. Public use and particularly circulation are a function of population size. Circulation generally determines the level of library staffing, i.e., one full time staff person is permitted for each 25,000 volumes of annual circulation.

Table 4.10-4 provides circulation/population ratios for selected library service areas in the county. As shown, there is a range of 3.1 volume circulated per capita to 8.1. High income areas of the county generally demonstrate higher circulation

TABLE 4.10-4

CIRCULATION PER POPULATION RATIOS
FOR SELECTED LIBRARY SERVICE AREAS,
SACRAMENTO COUNTY

<u>Branch Name</u>	<u>Population (1972-73 est.)</u>	<u>Circulation (1969-74 avg.)</u>	<u>Circulation/ Population Ratios</u>
Arcade	25,900	150,500	5.8:1
Citrus Heights	14,800	90,000	6.1:1
Fair Oaks	15,500	126,200	8.1:1
Florin	4,400	20,800	4.7:1
Foothill	26,700	139,700	5.2:1
Orangevale	26,600	99,500	3.7:1
Rancho Cordova	38,800	120,900	3.1:1
Rio Linda	12,700	48,000	3.8:1
Southgate	22,500	83,700	3.7:1
AVERAGE	23,900	113,100	4.7:1

Source: Sacramento County Master Plan Element for Library
Physical Development, March, 1974.

than lower income service areas. For middle-upper income residential projects, the analyst can use a 4:1 or 5:1/circulation: population ratio to estimate staff requirements. For lower income residential projects, the analyst should consult the city-county libraries to estimate staffing requirements and any special program/facility needs. Circulation in lower income areas may mean special tailoring of the collection, i.e., books, tapes, records, or special programming which might affect library budgets in these service areas.

4.10.3.2 Estimate Project Service Costs

Two methods are described below: Method A is detailed cost estimate based on a sample service plan; Method B is an indicator cost estimate based on per capita cost and tax rate trends.

Method A: Detailed Service Plan and Costs

To illustrate the detailed cost estimating procedure, we used the example of a 150-unit (single family) subdivision proposed for Southgate. The hypothetical site is north of Meadowview Road and west of Franklin Boulevard. The project demand and service requirements are as follows:

- . Projected residential population: 525.
- . Population characteristics: moderate income level (home price \$25,000-\$30,000+); family oriented (young) population.
- . Estimated circulation: population ratio; 4:1.
- . Service facility: Southgate Branch, 6132 66th Avenue Drive.

The project is located within a two mile radius of the branch.

Southgate has a new community branch which was financed with federal revenue sharing monies. The project is consistent with the area's population growth anticipated in the master plan: hence, no extraordinary capital outlays are required to meet the project's library service demand that is quantified below.

Sample Service Plan

Staff: Estimate 5:1 circulation/capita -- $525 \times 5 = 2,625$ volumes of added annual circulation; equivalent to adding 0.1 of full-time staff member.

Library materials: While standard is two books/capita, with countywide library spending at approximately \$6+/capita, the material budget would probably not exceed \$2,000.

Operation: Estimate increases in services and supply will probably be negligible, less than 1% increase in the operating budget.

Capital Expenses: No extra capital expenses associated with project since its size and location are consistent with the County Library Master Plan on Physical Development.

Budget Estimate (Cost Impact of Project) Staff;

\$10,000 annual salary and benefits x 0.1	\$ 1,000
Library materials (1,050 books @ \$10/volume)	2,000
Operations, furniture and equipment	<u>500</u>
Total	\$ 3,500

Method B: Indicator Costs

Table 4.10-3, above, provides the analyst with current cost trends in terms of expenditures per capita that can be applied to most projects.

4.10.3.3 Library Operating and Capital Revenues

The principal source of library funding is local government, consisting of the City and County of Sacramento, which contribute the largest portion of public library financing. The local sources of revenue are provided through (County) property taxes and/or monies appropriated from the general fund (City Library budget). Currently, property taxes constitute the largest source of local funding.

The Sacramento City/County Library System has developed its County Master Plan Element for Library Special Development in connection with application for federal revenue sharing grants. Approximately \$5.7 million has been allocated to physical expansion and is expected to be funded through federal revenue sharing.

Should the analyst wish to calculate local revenues to the library system from a proposed project, an appropriate tax rate should be applied to the project's estimated assessed valuation. Through this procedure, property tax revenues are made equal to operating

costs which reflect actual practice in Sacramento library financing. It should be noted that although libraries are exempt from the S.B. 90 property tax rate limitation, they still have a property tax rate limit set at \$0.30/\$100 assessed value per State Education Code Section 27263 under Article 63.

4.11

GENERAL GOVERNMENT

4.11.1

THRESHOLD

BECAUSE OF ITS HEAVY RELIANCE ON PER CAPITA MEASURES, THIS SERVICE WILL BE LITTLE AFFECTED BY PROJECT ALTERNATIVES, AND IT IS POSSIBLE FEW PROJECTS WILL BE FULLY ASSESSED. FULL ASSESSMENT APPEARS JUSTIFIED ONLY WHERE THE PROJECT GIVES RISE TO ABNORMALLY LOW OR HIGH COSTS OR REVENUES, AT EITHER THE LOCAL OR COUNTY LEVEL. FOR EXAMPLE, MOBILE HOMES PAY LITTLE IN PROPERTY TAXES, BUT DO PAY OTHER REVENUES TO THE COUNTY AND SCHOOL DISTRICT. WHERE RELEVANT, THE TRANSIENT OCCUPANCY TAX MIGHT BE SIGNIFICANT. SOME LAND USES THAT PAY UNUSUALLY HIGH PROPERTY TAXES IN RELATION TO SERVICE DEMAND (E.G., INDUSTRIAL) MIGHT BE FULLY ASSESSED SIMPLY TO DISCLOSE THEIR TOTAL FISCAL BENEFIT.

AT THE PLAN LEVEL, THE FISCAL IMPACT OF ALTERNATIVES IS HEAVILY DEPENDENT ON GENERAL ECONOMIC AND SOCIAL IMPACT. FOR EXAMPLE, PUBLIC ASSISTANCE MAKES UP THE LARGEST GENERAL GOVERNMENT COST ITEM, AND IS DETERMINED BY THE GENERAL ECONOMIC AND SOCIAL HEALTH OF THE COMMUNITY. MAJOR GENERAL GOVERNMENT REVENUES -- THE PROPERTY TAX, SALES TAX, ETC. -- ARE SIMILARLY DEPENDENT ON THE EXTENT OF BASIC EMPLOYMENT AFFECTING, IN TURN, NONRESIDENTIAL GROWTH AND RESIDENTIAL PURCHASING POWER. TO SOME EXTENT, BASIC EMPLOYMENT DEPENDS ON SACRAMENTO'S COMPETITIVE POSITION AS A REGION, AS WELL AS ON STATE GOVERNMENT AS AN EMPLOYER.

4.11.2

INTRODUCTION

In addition to the nine services for which cost and revenue methodologies have been developed, there are a number of other indirect or general local government services and revenues which the analyst may wish to consider in an impact assessment. In

an unincorporated area, they are almost entirely county services.¹ Since two of the nine services already considered -- Sheriff's protection and roads -- are provided by the County, what is at issue here is all other county services and associated revenues.

This task presents classic problems of economies of scale, incremental costs, sociological measurement, revenue generation concepts, and so forth. For example, taking the "general" group of services in the county budget, how is the impact of a project on the County Executive's office, the Assessor, or the Treasurer to be measured? The common practice is an average per capita cost figure. This would not be applicable to non-residential projects. A way to overcome this is to more or less arbitrarily decide that X% of County service demand is attributable to residential areas, and X% to commercial, industrial, etc., making possible an average per acre cost figure for the nonresidential uses. To the extent there may be economies of scale (usually a difficult fact to document), the above approach overstates cost impact unless current average per unit costs are reduced by some percentage.

Taking the "public assistance" group of services, how is the impact of a project on aid to children or medical care to be measured? Again, the common practice is a per capita basis, possibly adjusted for housing type and price if supporting data are available. Even this is vulnerable to unpredictable changes in the character and timing of the project as it develops and to long-term neighborhood changes.

On the revenue side, the major conceptual issue concerns the use of a per capita approach as against one related to specific land uses. Clearly on the per capita side are such revenues as

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An exception might be street lighting or some other minor service financed through a taxing District.

marriage licenses or court fees. Clearly on the specific side are property taxes. But what of sales, cigarette and transient occupancy taxes, business licenses, building permits, plan check fees, etc.? They appear to include both a site-specific base (e.g., anticipated sales at a shopping center or motel project) and a more generalized base (e.g., spending per capita), which are interdependent in that, to occur, the sale requires both the seller and the buyer. In the case of building permits and other development fees, there is both an immediate specific revenue, namely, the fees estimated to be paid by the project as it develops, and the more generalized and smaller future fees from remodeling, rezoning, etc. These fees are also set to approximate costs.

This discussion is intended to suggest to the analyst that there are some choices as to measurement methodology, and they might appropriately vary from one type of project to another. Care should be taken, on the revenue side, not to mix methodologies which might result in double-counting. In a project including a shopping center and residential uses, to combine the full sales tax anticipated for the center and the sales tax from anticipated residential spending would be double-counting. Appropriate downward adjustments in both figures might eliminate the overlap. Similarly, if building permit revenue from the project's construction were combined with a per capita general building permit figure, it would be double-counting unless the latter were adjusted downward to allow for the fact that most building permit revenue comes from new project construction.

4.11.3 THE DIVISION BETWEEN COUNTYWIDE AND UNINCORPORATED AREA

Because Sacramento County utilizes an Unincorporated Area Service Fund,¹ which designates both the service costs and revenues that

¹Described in Section 5.10.

are restricted to the unincorporated area, it is possible to be much more precise than it is in other counties.

4.11.4 UNINCORPORATED AREA

4.11.4.1 Expenditures

Most of the service costs in the Unincorporated Fund could be made into a per capita figure by dividing the unincorporated area population, currently estimated at 404,766, into the total figure. The costs that would not be handled on this basis are the following:

- . Regional transit. This is a fixed amount that does not increase with growth and should be omitted altogether.
- . Some planning costs. Of the six items under this heading, some may not be impacted by projects. This can be ascertained by discussion with the CDEPA.
- . Sheriff's protection. This is handled separately.
- . Building inspection and subdivision processing. The problems here were discussed in the conceptual section. If these items are omitted from the per capita figures which is suggested, they should be shown as direct project costs. Estimating rules-of-thumb for both costs and revenues can be obtained from the relevant departments. Since these costs and revenues are set to balance, the analyst may prefer to omit them altogether.
- . Roads. This item should be related to the way total road costs and revenues are estimated.

- . Bikeways. At present, bikeway costs are determined solely by the bikeway plan and should be omitted unless a project affects the plan.

4.11.4.2 Revenues

Most revenues in the fund could also be lumped into a single per capita figure. As discussed earlier, the exclusions might include sales tax, cigarett tax,¹ business licenses,² building and zoning permits, and plan checking and subdivision fees. Mobile home permits and mobile home park fees can be directly estimated for mobile home projects, based on current fee schedules. (See Section 5 for procedures on estimating these revenues.)

4.11.5 COUNTYWIDE

4.11.5.1 Expenditures

First, all Unincorporated Fund (Fund 013) expenditures should be subtracted from the county budget. Most of the remaining expenditure items then would be lumped in a per capita figure by using the county's population, currently 690,900. The following should probably be excluded:

- . Airport law enforcement. This appears impacted very slightly, if at all, by growth and should be omitted.
- . Weed and predatory animal control. These are strictly rural³ services and should be omitted.

¹In unincorporated areas, cigarette tax revenues may currently be estimated as equal to 13.66% of the sales tax.

²Those can be estimated according to the county ordinance.

³Although Agricultural Commissioner/Sealer of Weights and Measures may appear rural, it is impacted by urbanization.

- . Fish and game propagation. This also appears unaffected by growth.
- . Public ways. This item should be related to the way total road costs and revenues are estimated.
- . Library appropriations. These are included within the methodology for that service.

In addition, to allow for the fact that the incremental increase in administrative overhead costs is less than a straight per capita, it is recommended that only 50% of the per capita costs of those items listed under "general" in the county budget be used.

It is suggested that debt service and the contingency appropriations be included. Although debt does not increase directly as a result of a project, the need for future park and other bond issues will.

Public assistance costs present the conceptual issue discussed earlier. Because they make up a very large part of the county budget, their treatment on a per capita basis will tend to increase the impact figures above a realistic level. The same will be true of public assistance revenues, most of which is state and federal support of actual caseload. The analyst has several choices, as discussed earlier. In addition, it is possible the Department of Social Services can provide some guidance in this area. Finally, the prospective Social Impact Study may provide a methodology.

4.11.5.2 Revenues

After excluding Fund 013 revenues, most remaining revenues in the County budget would be lumped in a per capita figure. The most important exclusions are property tax and road revenues.

State payments for Homeowners Property Tax Relief and Business Inventory Tax Relief also should be omitted, since they equal the property tax exemptions for these two classes of taxpayers. Other exclusions are:

- . Transient occupancy tax. This can be directly estimated for relevant projects, and currently would be 6% of anticipated lodging revenues. (See Section 5.06.)
- . Aircraft and livestock taxes, unless these types of properties are included in the project.
- . Motor vehicle in-lieu tax. (See Section 5.07.)
- . Trailer coach in-lieu tax. This can be directly estimated for relevant (e.g., mobile home) projects. In unincorporated areas, the county and local school district each receives one-half of the state-collected fee, which is set to represent 2% of the vehicle's value.
- . Williamson Act and other agricultural revenues. In fact, development would eliminate the present negative revenue effects of Williamson Act contracts.

SECTION 5

5.00 IMPACTS ON TAXES AND OTHER REVENUES

5.01 INTRODUCTION

This section on taxes and other revenues presents guidelines on emphasis in analysis of revenues, indicating the most important revenue sources to the county. It presents methodologies for estimating these revenues.

The preceding section also included some revenue discussions primarily to identify earmarked revenue sources for specific services. This section, however, provides instructions on the revenue estimating procedures themselves.

Development impacts county revenues through its effect on the tax base and through the fee collected by the county. While development explicitly affects property taxes through the construction of new structures and facilities, impacts on other revenues are often less direct. New housing may mean more people, but their effect on local sales tax will depend not only on how much money they have to spend but where they spend it as well. Grants such as Federal Revenue Sharing may depend more on the relative growth in the county to the rest of the nation than the changes in the county itself. Forecasting impacts on revenues requires an understanding of both the tax laws and the direct and indirect relationships between development and the county tax base. The following sections discuss the tax base and identify the important relationships among development, local revenues, and revenue forecasting methodologies.

It should be mentioned that forecasting also requires some discretion on the part of the analyst. Not only do some revenues constitute small portions of the budget but, for many developments, the overall impact on revenues will also be small. In these cases, extensive forecasting effort will not be very productive given the magnitude of the impact and the reliability of the forecasting methods. For guidance, Table 5.01-1 lists the percent distribution of revenues by source for Sacramento County. However, experience will ultimately be the best guide.

5.02

PROPERTY TAXES

The property tax is the tax based on the market value of real property, land and improvements, and tangible personal property, business equipment and inventories, boats, airplanes, etc. This tax is a major source of revenue for the county, (see Table 5.01-1), as well as for school districts and special districts.

The procedure for estimating the impact of a development on property tax revenues begins with an estimate of the change in the tax base. According to California law, the tax base or "assessed value" should be at 25% of fair market value. Fair market estimates are based on the present market selling price as determined by recent sales of comparable properties and, in the long run, by the net income that the property can generate in use. Because the County Assessor reassesses property only periodically, the assessed value of property on the tax rolls is not necessarily equivalent to 25% of the market value. Statewide for the 1973-74 tax year, the ratio of assessed to full cash value of locally assessed property was 23.8%. For Sacramento County in 1973, the ratio was

TABLE 5.01-1

DISTRIBUTION OF REVENUES BY SOURCE FOR SACRAMENTO COUNTY
FOR FISCAL YEAR 1972-73

	<u>Percent</u>
<u>Taxes</u>	
Property	31.7
Sales	4.9
Other	0.4
 <u>Licenses and Permits</u>	 0.9
 <u>Fines, Forfeits and Penalties</u>	 1.3
 <u>Use of Money and Property</u>	 1.2
 <u>From Other Governmental Agencies</u>	
State:	
Alcohol Beverage Licenses Fee	0.1
Highway Users Tax	3.7
In-Lieu Tax -- Motor Vehicle, Trailer Coach, and Others	2.3
Welfare	14.6
Health	2.4
Homeowners Property Tax Relief	1.7
Business Inventory Property Tax Relief	0.6
Others	1.9
Federal:	29.6
 <u>Charges for Current Services</u>	
Planning and Engineering	0.08
Library Services	0.03
Park and Recreation Fees	0.2
Others	1.7
 <u>Other Revenue</u>	 <u>0.4</u>
	99.7

Source: Annual Report of Financial Transactions concerning
Counties of California, Fiscal Year 1972-73.

21.9%. In estimating the property tax base, the fair market value must be converted to the assessed value through the use of this ratio.

The revisions of S.B. 90 and other statutes include significant property tax exemptions. But these are not a particular problem in forecasting revenue. Under the Homeowners Tax Relief Program, the State General Fund reimburses the counties, cities, and other local tax agencies for the exemption granted homeowners. The Business Inventory Tax Relief Program provides an exemption of 50% from local taxation of the assessed value of business inventories, and the state provides full reimbursement to local agencies to cover this exemption.

Tax exemptions for senior citizens, preservation of open space,¹ livestock grazing, etc. are also provided for by state property tax relief subventions. In general, these exemptions will in effect not be a reduction of property tax revenues, although special districts that do not tax all real property (e.g., those that tax only land or land plus improvements) are not eligible for state relief.

The estimated change in property tax revenue for each impacted tax district is the product of the existing tax rate (\$1 per \$100 assessed value) times the estimated increase (or decrease) in the property tax base. Use of existing tax rates will identify revenue shortfalls or surpluses and will facilitate discussion on the development "paying its own way" for public services. The text table below shows historic, basic property tax rates for the City and County of Sacramento.

¹State subventions do not currently replace the entire amount of revenue lost via Williamson Act agriculture preserve contracts.

<u>Fiscal Year</u>	<u>Sacramento City Basic/\$100</u>	<u>Sacramento County Basic/\$100</u>
1970-71	\$2.89	\$4.350
1971-72	2.89	4.540
1972-73	2.80	4.463
1973-74	2.80	4.463
1974-75	2.80	4.149

5.02.1 ESTIMATING A CHANGE IN THE REAL PROPERTY TAX BASE

The following methods will enable the analyst to estimate the changes in tax base resulting from a development or project. Each technique differs in basic assumptions and data requirements.

5.02.1.1 The Value of Comparable Properties

In general, the use of assessed value of comparable property is a valid and often used, readily available method for estimating the value of additions to the tax rolls. This method applies to residential, commercial, industrial, vacant, urban, and agricultural land. Such data are available in the office of the Sacramento County Assessor, which can also indicate differences from area to area in terms of market values, and their rate of increase over the years, for existing development.

5.02.1.2 The Value of a Project

The value of a project can be approximated by estimating its cost. While the cost of construction is the primary cost, land preparation (e.g., grading) and landscaping, furnishings, sales expense and financing costs also contribute significantly to the cost of development. Some rough guidelines for appropriate cost assumptions for these items are given below.

5.02.1.2-1 Construction Costs

Actual construction estimates can be made from schematics or final architectural plans by determining the quality of various materials required multiplied by their unit cost plus the labor required for each trade times the effective rate for that trade. However, rough estimates for construction costs can be made by multiplying the floor area of the structure by an estimated cost per square foot.

Table 5.02-1, which shows construction costs for projects initiated in the spring of 1974, was prepared after a review of several sources of construction source data. Since construction costs have experienced significant inflation, cost data should be updated frequently.

5.02.1.2-2 Other Costs

In addition to the construction costs, the major components of a project cost are land, financing, selling expenses, overhead, and profits. Table 5.02-2 below gives some rough guidelines for appropriate cost assumptions for these items. The costs vary for different types of improvements and may be markedly different from these suggested ranges in special situations. The factors in Table 5.02-2 can be used as guidelines in estimating land and sales costs for types of construction, other than single family housing. Overhead and profit are included in the figures.

Guidelines for estimating these costs for single family housing are as follows:

TABLE 5.02-1

CONSTRUCTION COSTS PER SQUARE FOOT¹

	<u>Sacramento (April 1975)</u>	<u>Bay Area (April 1974)</u>	<u>Los Angeles (April 1974)</u>
Single family home (medium quality)	\$21	\$23	\$16
Single family home (good quality)	26	29	23
Wood frame apartment building	20-24	19	16
Garden apartment building	32	32 ²	28
High-rise office building	40	47 ³	33
Low-rise office building	28	NA	NA
Warehouse	10	11	9
Retail store (small)	17	18	16
Department store (3 stories)	28	27	23

Sources:

All Sacramento cost estimates from Capital Federal Savings & Loan Association. Housing estimates - Appraisal Department, Bank of America, 555 California Street, San Francisco 94104. Commercial/Industrial estimates - Northern California Real Estate Report, Real Estate Council of Northern California, 57 Post Street, San Francisco 94104. Marshall & Swift Publication Company, Los Angeles.

¹Includes normal land preparation (not land cost) and construction; does not include financing and sales expenses.

²Includes two levels of subterranean parking.

³Includes tenant improvements.

NA means not available.

TABLE 5.02-2

LAND AND SALES COST FACTORS FOR
DEVELOPMENTS OTHER THAN SINGLE FAMILY

	<u>Land</u>	<u>Leasing or Sales</u>
Garden apartments	10-15%	1%
High-rise apartments, condominiums, and office buildings	10-15%	1-2%
Warehouse	15-30%	2%
Retail store	15-35%	2%

Source: Economic Practices Manual: McDonald & Smart, Inc.
December, 1974.

Land: Developed lots generally comprise 20% to 30% of project cost. Land is usually a larger percentage of cost in developments of higher-priced homes. Land costs in developments with facilities for shared use will be an even larger portion of the total if they include the cost of the common facilities.

Financing: Financing costs are usually about 3-5% of project cost, depending on the level of interest rates and assuming that the homes are sold soon after their completion.

Selling Expenses: In the four large metropolitan areas of California, selling expenses are likely to constitute about 2-2.5% of project cost. Outside of the metropolitan areas, 3-4% is more common.

Overhead and Profit: In most projects, each major function is performed either by a separate profit center within the firm or by an independent company. In these cases, the cost estimates for each major component already include allowances for overhead and profit, and no further specific consideration of this item is necessary. The estimates given in Tables 5.02-1 and 5.02-2 include overhead and profit. If data are generated from other sources, the analyst may wish to check to assure that an allowance for overhead and profit is included. The usual allowance for overhead and profit in the development of single family housing is 15%.

The personal property tax base (about 14% of the total assessed value in Sacramento County) is primarily business equipment and inventories. Therefore, any direct impact on this tax base will be from industrial and commercial activities. Residential development will only impact this tax base indirectly if it generates additional commercial activity.

The amount of inventory and equipment associated with the development will be specific to the industry and/or commercial enterprise. Sufficient information may be available from the County Assessor to estimate this property tax base on a per square foot basis for different types of business activities.

For tax purposes, property is classified as either secured or unsecured property. Secured property is all real property and improvements plus personal (that is movable) property located on the premises of its owner. Unsecured property is personal property not located on the premises of its owner (the underlying real property cannot be used to secure the tax obligation). Because of its fleeting nature, it is treated differently for tax purposes than secured property. Unsecured property, which is normally the personal property (equipment, inventory, etc.) of a business or private tenant, requires more immediate payment of property taxes. Thus, it is taxed at the rate of the just-completed fiscal year. Secured property taxes are assessed at the property tax rates prevailing for the current fiscal year.

Retail sales are a substantial and growing city and county tax base. The sales tax is levied on the gross value of the sales of most tangible property other than property sold for resale and payable by retailers. Exempted items include food for home consumption, prescription medicines, newspapers and periodicals, and any form of animal life that constitutes food for human consumption. The statewide sales tax presently (1974) is 6%. The total rate is the sum of several components: a 4-3/4% rate for the state general fund; a 1% rate for local governments;¹ and a 1/4% rate for local mass transit. The 1% local sales tax is remitted quarterly to counties on the basis of taxable retail sales for that period. Administrative costs lower the remittance to local governments to 0.95%.

Local sales tax revenue is not directly related to the size of population or its income level since sales tax revenue is allocated to the city or county where the sale took place. Some large commercial activities may draw sales dollars from other communities in other counties producing relatively large tax revenues per capita. Table 5.03-1 illustrates this effect. Although not corrected for differences in income levels, 1973 per capita sales tax revenues were

¹The uniform sales and use tax law permitting county governments to levy a one-percent sales tax has the effect of necessitating agreements between cities and counties as to the division of sales tax revenue within cities. These agreements vary and are subject to periodic adjustments. In addition, counties may have supplemental agreements with their cities in which a percentage of collections is returned to the city in which the sales occur. At present, Sacramento County has no such agreement, and its incorporated areas receive the full one percent sales tax.

TABLE 5.03-1

PER CAPITA TAXABLE SALES TRANSACTIONS
ALL OUTLETS -- 1973

State of California	\$2,976
Sacramento County	2,895
Incorporated	3,503
Unincorporated	2,472
City of Sacramento	3,584
City of Folsom	1,563
City of Galt	2,203
City of Isleton	2,744

Source: Taxable Sales in California, State Board of
Equalization.

lower in the unincorporated areas than in the incorporated areas of the county. Small cities of the county experience significantly lower sales per capita than Sacramento.

The basic information source on taxable sales for cities and counties is Taxable Sales in California, compiled and published quarterly by the State Board of Equalization. The data in this publication include sales by retail store types and per capita sales; more detailed breakdowns than those presented for cities and the 26 least populous counties are available from the Board at no cost to local governments. Specialized small area studies can be obtained, at cost, from the Board.

The reliability of forecasts with these per capita sales tax data should be considered for each application.¹ In a situation of relatively minor growth, it can be assumed that per capita retail sales would remain constant. Under a growth situation, the assumption of a constant per capita expenditure would tend to underestimate expected sales.

First, there is likely to be an increase in taxable sales due to an increase in commercial developments. Second, there may also be less leakage of consumer dollars out of the areas because, as the area grows, it will be able to support a wide range of local shops.

¹Each year the Board of Equalization publishes Data for Estimating Local Sales and Use Tax Revenue, County Transportation Funds and Estimated Cigarette Tax Allocations. This information suggests approaches that consider growth rates in taxable sales and is available from the Board's Statistical Research and Consulting Division.

EXAMPLE

RETAIL SALES TAX REVENUES ASSOCIATED WITH A POPULATION INCREASE

Present Population	50,000
Local Annual Per Capita Taxable Expenditures	\$1,900
Regional Per Capita Taxable Expenditures	\$2,000
Local Capture Ratio	95%
Projected Population	75,000
Projected Capture Ratio	110%
Projected per Capita Taxable Expenditures	\$2,200
Projected Annual Taxable Expenditures (\$2,200 x 75,000)	\$165,000,000
Portion Remitted to City/County	0.95%
Retail Sales Tax Revenue	\$1,567,500

Leakages may be best defined in terms of capture ratios. The local capture ratio is the ratio of per capita taxable sales for the region (the entire county) to the local area (the unincorporated area of the county). An analysis of local conditions, comparisons with other locations, and the anticipated local development may indicate a change in this capture ratio. In the example shown above, the local capture ratio is expected to surpass the regional average of per capita sales due the local increased population and consequent development of a subregional base for commercial activity. For an area within a city or part of a county which would likely show the same type and level of expenditure, a simplified procedure would be to use the per capita expenditure applicable to the relevant city or county.

The use of taxable sales per capita considers only the average sales pattern for the area. Within a large area, such as the unincorporated portion of Sacramento County, the actual local sales patterns (i.e., the local capture ratio) will vary considerably. Accurate forecasts of sales tax will require an understanding of relationships between the tax and factors associated with different types of developments.

Spending and spending patterns in residential developments will depend on the income levels of the residents and the location of the development in relation to marketing area of existing commercial activity. Family income levels of new residents can be predicted from the relationship established between the value of the housing units and the income level necessary to support the quality of housing (Table 5.03-2). Estimates of the average annual taxable purchases can be based on the relationship between adjusted gross incomes and taxable sales (Table 5.03-3).¹

The portion of local sales tax revenues that will be retained within the jurisdiction will be strongly influenced by the pattern of trade areas in which the development is located. Trade areas are difficult to define specifically but are related to shoppers' habits, the location of existing competition, the drawing power of different establishments,

¹The Bureau of Labor Statistics of the Department of Labor published data on typical annual expenditure levels for families disaggregated by expenditure type. Bureau of Labor Statistics, Annual Consumption Cost for Urban Family of Four, Autumn, 1972.

TABLE 5.03-2

HOUSING COSTS AND CORRESPONDING INCOME

(All housing cost and income categories, for all years,
have been converted to 1970 dollars)

<u>Housing Costs</u> ¹	<u>Corresponding</u> ² <u>Income</u> <u>(Gross)</u>
Less Than \$50	Less Than \$1,821
\$ 50 - \$ 99	\$ 1,832 - 3,754
100 - 149	3,755 - 5,681
150 - 199	5,682 - 7,633
200 - 249	7,634 - 9,600
250 - 299	9,601 - 11,645
300 - 349	11,646 - 13,709
350 or More	13,710 or More

¹Including gross rent or principal interest, FHA premium, upkeep, and utilities.

²Housing costs equal 35% net monthly income. Income figures are recalculated to show gross income.

Source: SRAPC, Quantitative Housing Needs, June, 1974.

TABLE 5.03-3

PERSONAL INCOME TAX
SOURCE DATA FOR IMPACT COMPARISONS
1972 INCOME YEAR

Adjusted gross income	Average itemized deductions	Average long- term capital gain excluded from AGI	Average annual taxable purchases ¹
<u>Typical single persons - no dependents</u>			
\$ 2,500	\$ -	\$ 900	\$ 1,700
5,000	1,700	1,600	2,500
7,500	1,900	1,600	3,200
10,000	2,300	2,200	3,700
12,500	2,700	2,700	4,200
15,000	2,800	3,400	4,500
20,000	3,800	4,500	5,100
25,000	4,500	6,000	5,600
30,000	5,400	7,400	6,200
50,000	9,500	13,200	7,800
100,000	18,300	27,700	12,000
<u>Typical head of household - one dependent</u>			
\$ 5,000	\$ -	\$ 1,100	\$ 3,100
7,500	2,300	1,500	3,400
10,000	3,100	2,300	3,800
12,500	3,500	3,000	4,100
15,000	3,900	3,800	5,000
20,000	4,500	4,600	5,400
25,000	5,300	5,700	5,900
30,000	6,000	7,200	6,500
50,000	9,000	13,200	9,200
100,000	16,400	28,100	16,000
<u>Typical married couple filing jointly -- two dependent children</u>			
\$ 5,000	\$ 2,000	\$ 1,300	\$ 3,200
7,500	2,200	1,200	3,700
10,000	3,000	1,400	4,200
12,500	3,300	1,600	4,600
15,000	3,700	2,200	5,500
17,500	3,800	2,500	5,900
20,000	4,200	3,000	6,500
25,000	4,600	3,300	7,200
30,000	5,500	4,900	7,800
40,000	6,900	6,800	8,500
50,000	8,300	8,700	9,700
60,000	9,700	10,600	11,000
70,000	11,100	12,500	12,200
80,000	12,500	15,400	13,500
90,000	13,900	16,300	14,700
100,000	15,300	18,200	16,000

Source: Franchise Tax Board, February, 1974. Unpublished, internal data received from Allan N. Desin, telephone (916)355-0883.

and existing highway and public transportation systems. Typically, families buy food and small items within their immediate neighborhoods. They are willing to travel considerable distances to buy "high ticket items" like furniture and clothing. The Urban Land Institute's Community Builders' Handbook suggests the following criteria.

- . The primary trade area for a neighborhood center is the close-by, "walk-in" area plus the area which has daily convenience stores no closer than the development site under investigation. For convenience items like food and personal services, it is likely the business will come from populations within five-minutes' drive time -- about a 1-1/2 mile radius depending on the density and character of residential use.
- . Secondary trade areas, such as community centers, are the areas which may have local convenience stores but with no important soft line (apparel) and hard line (hardware, appliances, etc.) stores or shopping goods (furniture, high ticket clothing) stores with more convenient access than the proposed development site. Driving time can be set at 15 to 20 minutes or within a 3 to 5 mile radius.
- . The tertiary or fringe trade area for regional centers is the area from which customers may be drawn because easier access, greater parking convenience, and better marked merchandise are offered even though other shopping goods stores or department stores may be present. Driving time

to the site from this area may be up to 25 minutes depending on the traffic conditions and the type of highway travel provisions. Usually this means the trade area may be actually 2 to 20 miles distant.

The analyst will need to identify the location of specific types and qualities of shopping areas within the county. Over time, maps of trade areas can be developed as the analyst gains a greater understanding of trade relationships.

Sales tax revenues generated by retail outlets can be estimated on the basis of average sales per square foot of retail space. Data are developed on a recurring basis by the Urban Land Institute for different types of shopping centers and stores by region.¹ The 1972 data are presented in Table 5.03-4 by store type and type of shopping center. The average sale for different types of shopping centers can be inflated to today's prices by the Consumer Price Index.

Other factors will affect the actual increase in sales tax revenue from new retail outlets. First, the more the trade area of a new retail development extends into areas outside the unincorporated area of the county, the greater the sales tax dollars generated. Secondly, when the development represents competition for existing establishments in the county, total sales tax revenue in the county may not increase. The development will only reallocate existing sales. In both cases, some judgment has to be exercised on the proportion of the sales that are a net increase for the county. The amount will depend on the specific nature of the development,

¹Urban Land Institute, The Dollars and Cents of Shopping Centers, 1972.

TABLE 5.03-4

ESTIMATED TENANT SALES FOR
SHOPPING CENTERS IN THE FAR WEST,¹ 1972

	Dollars per square foot of Gross Leasable Area (GLA)	
	<u>Medium</u>	<u>Middle-Range</u>
Regional Shopping Centers	\$60	\$53 - \$69
Community	58	47 - 67
Neighborhood	79	52 - 86

Sales of Principal Tenants, by Type of Center

	Dollars per square foot GLA		
	<u>Regional</u>	<u>Community</u>	<u>Neighborhood</u>
Department Stores	\$58	-	-
Junior Department Stores	54	\$47	-
Variety Stores	32	38	\$33
Super Markets	88	110	113
Drug Store	74	78	69

Source: Urban Land Institute, Dollars and Cents
of Shopping Centers, 1972.

¹Far West region is defined as Federal Reserve District 12 and includes California.

its location, and the qualities it has to offer in terms of products and shopping ease.

Average sales per square foot represent the sales for developments with mature trading patterns. It takes time for any area to fully develop its sales potential. People need to learn about the products and the development's amenities. Sales tax revenues per square foot may not develop as immediately as the area's need for public services. This should be considered in using this method for short-term budget forecasts.

The example below shows expected annual retail sales tax revenue resulting from the development of a community shopping center in the Far West.

EXAMPLE

RETAIL SALES TAX REVENUES FOR A COMMUNITY SHOPPING CENTER

Community Shopping Center Gross

Leasable Area (GLA)	155,000 sq. ft.
Annual Tenant Sales per sq. ft. ¹	\$58
Annual Retail Sales	\$8,990,000
Taxable Retail Sales ²	\$6,900,000
Portion Remitted Directly to	
City/County	0.95%
Retail Sales Tax Remmitted	\$65,550

¹The Dollar and Cents of Shopping Centers, Urban Land Institute, 1972.

²The shopping center is assumed to include a supermarket, estimated @ 20,000 sq. ft. at \$120.35/sq. ft. annual sales with 20% of purchases taxable (this generally varies between 20 and 25%), and one drugstore @ 9,000 sq. ft. at \$67.31 sq. ft. annual sales with 70% of purchases taxable (depending on type of drugstore, this can vary between about 50% and 80% of purchases).

The property transfer tax is the tax levied on the sale of real property. It is levied at a rate of \$1.10 per \$1,000 sale value of property transferred exclusive of any lien or encumbrance. The tax revenues from this tax are a relatively small portion of the total county revenues; for the fiscal year 1972-73, it accounted for 0.003% of all county revenues in California. Estimation of revenues accruing from sales is simply a matter of applying the county rate to total estimated sales value.

Property transfer tax revenues for situations involving new development can be estimated quite simply on the basis of sales forecast, less encumbrances; banks, title companies, or the developer can provide estimates of the latter.

Since this tax revenue comprises such a small portion of most total budgets, one way of estimating yearly continuing revenue is to base it on the turnover rate of all property. By assuming that all property will change hands over a specific period, the value of property sold annually can be computed. The property transfer tax can then be calculated from this estimate.

A more precise estimate of transfer tax revenue can be based on past levels of revenue accruing from the sale of property and existing structures. The portion of revenues stemming from the sale of new housing can be distinguished from valuations of building permits. That portion comprising continuing revenue can then be projected based on the average increase in assessed value.

CALCULATION OF PROPERTY TRANSFER TAX REVENUE
BASED ON PAST LEVELS OF REVENUE

Property transfer tax revenue last fiscal year	\$ 100,000
Valuation of building permits	45,000,000
Property transfer tax as initial revenue (\$1.10/\$1,000 sales value)	49,500
Property transfer tax as continuing revenue (increased at 6%/year)	106,000
Total	155,500

5.05 BUSINESS LICENSE TAX

The county may set license fees for any kind of business not prohibited by law which is transacted and carried on within the limits of the county. Fees may simply be flat amounts applicable to almost all types of businesses or may be graduated according to monthly sales. However, they must be uniform and equal for all persons. Schedules of business license fees for the County are found in Title 5 of the Sacramento County Code. The total revenue collected through business license fees is relatively small. In 1972-73, this tax accounted for 0.11% of the revenues in Sacramento County.

5.06 VEHICLE CODE FINES

Vehicle code fines comprise a restricted local revenue source derived from fines and forfeitures as a result of violations of the State Vehicle Code. The allocation of vehicle code fines among city, county and state vary. For fines cited within a city, whether by a city officer or

state officer, revenue goes to the city minus an agreed upon percent (usually 20 to 30%) which goes to the county to defray court costs. For fines cited within an unincorporated area, whether by a county or state officer, revenues go to the county. The usual case in unincorporated areas will be traffic enforcement by the California Highway Patrol whose jurisdiction includes unincorporated areas and freeways within the cities. Money may be used only for traffic signs, signals, other traffic control devices and the maintenance thereof, equipment and supplies for traffic law enforcement and traffic accident prevention, and for the maintenance, improvement, or construction of public streets, bridges, and culverts within the city, but such funds cannot be used to pay the compensation of traffic or other police officers. At least 50% of these revenues must be spent on road traffic safety measures. It is current county policy to place this 50% amount in the Road Fund.

Usually the most accurate method of forecasting vehicle code fines is based on the indicator method of revenues per capita. Assuming no significant change in roadways, historic per capita rates will generally apply. Where a major roadway is planned, per capita vehicle code fines in a comparable area in terms of population size and traffic volumes should be used instead. For fiscal year 1974-75, vehicle code fines were \$1,809,560 in Sacramento County, of which 50% went to the Road Fund. This amounts to \$904,780, or about \$2.25 per capita of the unincorporated area population of 404,766. Therefore, residential projects would be assumed to generate added Road Fund revenues at the rate of \$2.25 per capita, provided, as discussed below, it can be assumed the population involved is a net addition to the unincorporated area population.

5.07

TRANSIENT OCCUPANCY TAX

The transient occupancy tax of 5% is levied by the county if lodging price is imposed. The tax does not apply if the period of occupancy is longer than thirty days. This tax comprises a small percentage of the total revenue collected by the county.

Expected revenues can be calculated on the basis of overall growth of specific hotel/motel developments. Alternatively, an approximate estimate can be made of total number of units within the county. In most cases, growth in hotel rooms is closely related to employment growth. The relationship of hotel/motel units to population and tourist activity is more complex. An estimate for new hotel/motel units normally requires a separate market survey.

Once the number of units has been estimated, the projected increase in local revenues can be calculated. Average room price and occupancy level will vary across communities. One way of determining these rates is to survey hotels. However, estimating a constant occupancy rate in the county and an average room price may produce an acceptable accurate estimate. Also, the tax collector's office, which administers this tax, has data on existing collections and should be able to provide estimates for specific hotel/motel projects.

5.08

STATE REVENUE SHARING AND GRANTS

5.08.1

HIGHWAY USERS TAX REVENUES

Revenues related to taxes on gasoline include both sales and excise taxes. However, while the local retail sales tax is directly related to gasoline purchases, that portion of the

state excise tax returned to cities and counties is based upon motor vehicle registration, assessed valuation, population, and maintained road mileage. Revenue from the 4-cents per gallon Federal Excise Tax are directed to the Federal Highway Fund. Revenues from the 7-cents per gallon State excise Tax are appropriated as follows:

ALLOCATION OF THE HIGHWAY USER'S TAX

<u>Street and Highway Code Section</u>	<u>Amount Per Gallon</u>	<u>Disposition</u>
Section 2104	\$0.01625 (23%)	Counties
Section 2106	0.01040 (15%)	Counties and Cities
Section 2107	<u>0.00725 (10%)</u>	Cities
Sub-Total Local Share	0.03390 (48%)	
Section 2108	<u>0.03610 (52%)</u>	State Highway Fund
	\$0.07000 (100%)	

Revenues in the Highway Users Tax Fund are allocated as follows:¹

¹The California State Controller each year (usually in February) estimates the amount of revenue to be distributed to cities and counties from the following sources:

Highway Users Taxes Sections 2104, 2106, 2107 and 2107.5
Motor Vehicle License Fees ("In-Lieu" Tax)
Highway Carriers' Uniform Business License Tax
Off-Highway Motor Vehicle License Fees

The analyst should consult this memorandum when preparing revenue projections. A copy will be available from the County Tax Collector.

The analyst should also consult the Board of Equalization's "Data for Estimating Local Sales and Use Tax Revenue, County Transportation Funds and Estimated Cigarette Tax Allocations" published annually. This information is available from the Board's Statistical Research and Consulting Division.

Statewide revenue from a \$0.01625 per gallon fuel tax is allocated as follows:

- a. \$1,667 monthly to each county for engineering and administration only.
- b. Up to \$1,500,000 annually for snow removal reimbursement. Sacramento is not likely to have such costs.
- c. \$41,667 per month apportioned among eligible counties for rain and storm damage to roads. For fiscal year 1975-76, Sacramento County is not entitled to participate.
- d. Of the total available, 75% is apportioned to counties annually according to the amount of fees paid and exempt vehicles registered in each county. For 1975-76 Sacramento County registrations are estimated at 609,111 and its apportionment at \$4,443,870. Thus, at present, each additional registered vehicle would increase county revenues by \$7.30. This figure is valid only for 1975-76 and thereafter only if the County's proportion of total registered vehicles in the State remains constant. (See summary below.)
- e. \$42 per mile of county road, less the amount paid under (d) above, to each county annually. Because Sacramento and other populous counties receive more under (d) than (e), they do not receive this apportionment.

- f. Remaining monies are apportioned under (d).
Sacramento's 1975-76 apportionment is \$1,134,750,
or about \$1.80 per registered vehicle. This figure
is subject to change as indicated in the summary
below, as the County's proportion of the total
registered vehicles in the state changes.

5.08.1.2 Section 2106

Statewide revenue from a \$0.014 per gallon fuel tax is
allocated as follows:

- a. \$400 to each city and \$800 to each county monthly.
- b. \$30,000 monthly to the Bicycle Lane Account.
- c. (1) The balance is initially apportioned annually
to each county as in 5.08.1.1 (d) above.
- (2) The county's share of this base sum is the
proportion the unincorporated area assessed
value bears to the total county assessed value.
Sacramento's 1975-76 apportionment is \$2,133,656.
Since the assessed value of the unincorporated
area is \$973,000,000, each additional \$100
in assessed value would increase county revenues
by about \$0.22. (See summary below for quali-
fications of this.)
- (3) The balance of this county base sum is divided
among the cities in the county according to
their population. For 1975-76, this is about
\$5.47 per capita or (including the \$400 monthly):

Folsom	\$ 49,525
Galt	25,863
Isleton	9,773
Sacramento	1,499,463

- d. The Section 2106 funds, amounting to \$0.22 per additional \$100 assessed value, while not as vulnerable to in-county transfer (this would be most likely and apparent with a large shopping center proposal), are vulnerable to city growth. The \$0.22 assumes no city increase in assessed value, and would come out of the share the cities now receive. If the cities grow proportionately as much as the unincorporated area, the county would receive no increase.

5.08.1.3 Section 2107

Statewide revenue from a \$0.00725 per gallon fuel tax is allocated annually to cities according to population, after deducting small amounts of flat fees for city snow removal reimbursement and engineering subsidies. For 1975-76, the main apportionment is about \$4.52 per capita or:

	<u>Main</u>	<u>Engineering</u>
Folsom	\$ 36,969	\$ 2,000
Galt	17,410	1,000
Isleton	4,111	1,000
Sacramento	1,235,456	10,000

The allocation system does afford the analyst a per-unit basis, in either registered vehicle or assessed value increase, to estimate increased county gas tax revenues from projects. However, this approach should be used with extreme caution and qualification because of the following:

- a. The Section 2104 funds, amounting to \$9.10 per additional vehicle, will hold up only if the number of new vehicles elsewhere in the state does not increase rapidly. If it does, the per vehicle amount will decline accordingly.
- b. In addition, it will be extremely difficult to determine whether the additional vehicles associated with a project will be new to the county or merely transferred from some other in-county location.

According to Section 30462 of the Revenue and Taxation Code, a cigarette excise tax is levied by the state at the rate of \$0.10 per package based on the wholesale distribution, and is collected by sales of stamps or metered impressions to distributors. Total collections are distributed as follows: (1) to pay refunds; (2) to the state controller, not to exceed \$150,000 per year; (3) for apportionment to cities and counties of 30% (less 30% for administrative cost), and (4) the balance for transfer to the state general fund. Apportionments are not made to any city or county which imposes a selective local tax on, or with respect to, the sale, distribution, use, consumption, or holding of cigarettes or any other tobacco product. No such local tax is presently in effect.

Each year the Board of Equalization publishes data to assist city and county fiscal officers in estimating revenues to be received from local sales and use taxes, including cigarette taxes. This information is available from the Board's Statistical Research and Consulting Division.

The cigarette tax is a relatively small portion of its total tax revenues. A simple per capita projection may be sufficient to project these tax revenues (Table 5.08-1).

5.08.3 MOTOR VEHICLE LICENSE FEES AND TRAILER
COACH FEES

The Motor Vehicle License Fee is an annual tax of 2% of the market value of motor vehicles and trailers, including trailer coaches and mobile homes, collected by the Department of Motor Vehicles at the time of vehicle registration. This tax is levied in lieu of a personal property tax, and all revenues are deposited in the Motor Vehicle License Fee Fund. After deducting refunds and administrative costs for the Department of Motor Vehicles, the remaining net revenue, except that from trailer coaches, is apportioned 50% each to cities and counties. Revenues are divided between cities based on the portion that the population of each bears to all other cities and are divided among counties in proportion to county population.

License fees paid on trailer coaches,¹ less administrative costs, are apportioned to the county where the trailer coach

¹Trailer coaches are defined by the California Motor Vehicle Department as a vehicle designed for human habitation which is greater than 16 feet and less than 48 feet in length and greater than 96 inches and less than 121 inches in width. Smaller vehicles are classified as camp trailers, while larger vehicles require special moving permits from the Motor Vehicle Department.

TABLE 5.08-1

PER CAPITA STATE CIGARETTE TAX DISTRIBUTIONS
TO SACRAMENTO COUNTY, 1972-73

<u>Jurisdiction</u>	<u>1973-74</u>
Sacramento	\$3.36
City of Folsom	2.99
City of Galt	3.34
City of Isleton	4.11
City of Sacramento	4.15
State of California	3.74

Source: California State Board of Equalization,
Annual Report 1973-74, California Department
of Finance.

is located in the following manner:¹

1. If the trailer coach is located in a city, one-third to the city, one-third to the school districts, and one-third to the county.
2. If it is located outside a city, one-half to the school districts, and one-half to the county.

If located in an elementary school district, a high school district and a community college district, the school share is allotted 10% to the community college district and the balance divided equally between the elementary and high school district.

If located in a unified school district and a community college district, the school revenue is allotted 10% to the community college district and the balance to the unified school district.

Apportionments of the motor vehicle "in-lieu" tax are based on relative population shares of cities and counties of total state population. Annually the State Controller publishes estimated motor vehicle license fee ("in-lieu" tax) revenue for cities and counties. The 1975-76 figures are shown below.

¹For the next fiscal year estimate, see California State Controller Memorandum on Estimated Motor Vehicle License Fees, issued annually.

MOTOR VEHICLE LICENSE FEES ("IN-LIEU" TAX)

The total amount estimated to be apportioned during the 1975-76 fiscal year together with a revised estimate for the 1974-75 fiscal year follows:

	<u>1975-76</u>	<u>1974-75</u>
To Cities:		
Estimated revenue to be apportioned	\$145,314,500	\$144,987,500
Estimated population	16,480,000	16,320,000
Amount per capita	\$8.82	\$8.88
To Counties:		
Estimated revenue to be apportioned	\$145,314,500	\$144,987,500
Estimated population	21,200,000	21,050,000
Amount per capita	\$6.85	\$6.89

Trailer coach fee revenues are normally estimated, using an historical per capita figure applied to projected population, unless it is expected that trailer coaches will significantly increase as a proportion of housing units or stay constant if trailer park development is halted. In this latter case, fees may be estimated while a constant revenue return would be expected if trailer park development is halted. Revenue projections for each of these cases are illustrated below.

EXAMPLE

Trailer-in-Lieu Revenues For A Population Increase

5-year historical per capita revenues	\$ 0.421
Average trailer coach fee revenues 1968-74	\$40,000
Average population 1969-74	95,000
1980 Population	120,000
1980 Trailer Coach Fee Revenue	\$50,520

EXAMPLE

Trailer-in-Lieu Revenues For Trailer Park Development

Trailer coaches allowable in park	50
Average value of trailer coaches	\$ 15,000
Value of all trailers	\$750,000
State Fee of 2% of Value	15,000
County Share of Revenues	5,000 ¹
City Share of Revenues	5,000 ¹
School District Share of Revenues	5,000 ¹

¹Does not account for a small percentage allocated to cover State administrative costs.

Estimating trailer coach fees that will be generated from a specific trailer park requires that the depreciated value of the trailers be used in computing the fees. The depreciation schedule for single and double width trailers as provided by state law is presented in Table 5.08-2. Trailers are moved infrequently so that the average age of trailers in the park can be expected to increase with the age of the trailer park development.

5.09 FEDERAL REVENUE SHARING AND GRANTS

5.09.1 GENERAL REVENUE SHARING

Federal general revenue-sharing came into existence as Title I of the State and Local Fiscal Assistance Act of 1972 (HR 14370). Although the program formally terminates at the end of calendar year 1976, the broad political support received at both the national and local levels

TABLE 5.08-2

MOBILE HOME DEPRECIATION SCHEDULE

1. Depreciation Schedule: Mobile homes are depreciated according to a statewide depreciation schedule. For single width mobile homes, the schedule is as follows:

<u>Years</u>	<u>% of Market Value</u>
1	85%
2	70
3	55
4	40
5	30
6	25
7	15
8	10
9	5

2. For double width trailers:

<u>Year</u>	<u>% of Market Value</u>
1	85%, decreasing at a rate of 4 1/2% per year over the next 18 years.

indicates that revenue-sharing will continue as a permanent element in local government finance.

A compromise between the U.S. House of Representatives and Senate versions of the original bill resulted in two different formulas for distributing funds among the states. California receives its funds under the House formula which is computed on the basis of the following weights and factors:

Population	22%
Urbanized Population	22%
Relative Inverse Per Capita Income	22%
State Income Tax Collection	17%
State and Local General Revenue Effort	<u>17%</u>
	100%

The State Government receives one-third of the state's allocation with the remaining two-thirds distributed to cities and counties. Funds are distributed among the counties by shares based on total population multiplied by adjusted tax effort and inverse per capita income. Adjusted tax effort is measured by the ratio of total net adjusted tax collections to total income of residents. Relative per capita income is measured by the ratio of the state's per capita income to the county per capita income. "Adjusted taxes" exclude any taxes levied for educational purposes or any taxes levied by special districts.

Funds allocated to counties are then divided between the county government and the aggregate of municipal governments within the county based on locally-raised adjusted taxes of each. For example, if total county taxes equal \$1,000,000, of which \$300,000 had been raised by the county

government, it would receive 30% of the funds allocated to the county area. Finally, shares to each of the municipalities within the county are determined on the basis of population multiplied by adjusted tax effort and relative per capita income.

Payments to local governments may not exceed 50% of the sum of that government's adjusted taxes and intergovernmental transfers of revenue during the immediately preceding fiscal year. Funds remaining available because of a reduced entitlement go to the county government in the case of municipalities or the state government if funds are in excess of that county government's entitlement. Funds available because of the reduced entitlement of counties go to the state government. The per capita amount allocated to any county or city is not to be less than 20% minimum and not more than 145% maximum of the per capita amount allocated to local governments statewide.

State governments may use their share of funds for any legally authorized purpose. The use of city and county entitlements are subject to broad interpretation, within the following guidelines:

- A. Ordinary and necessary maintenance and operating expenses for:
 - 1. Public safety (including law enforcement, fire protection and building inspection)
 - 2. Environmental Protection (including sewage disposal, sanitation and pollution abatement)
 - 3. Public Transportation (including transit systems and streets)

4. Health
5. Recreation
6. Libraries
7. Social Services for the Poor or Aged
8. Financial Administration

B. Ordinary and necessary capital expenditures authorized by law.

A detailed estimate of future federal revenue sharing funds is largely dependent on external factors and properly requires comparative data on projected population, per capita income, and level of tax effort at the state, county, and municipal levels. A rough estimate is simply to project a constant per capita amount. However, this not only assumes that the relationships between and among determinant variables (population, income, and tax effort) will remain constant, but that total allocated funds will increase in proportion to inflation and population increases. Bearing these broad assumptions in mind, such an estimate is shown in the following example.

EXAMPLE

Constant Per Capita Estimates of Federal
Revenue Sharing Funds

1972-73	Revenue sharing allotment	\$600,000
	Population estimate	75,000
	Revenue per capita	\$8.00
1980-81	Projected population	80,000
	Revenue per capita	\$8.00
	Projected revenue sharing allotment	\$720,000

Of these three variables in the revenue sharing formula, it is reasonable to assume that both per capita income and level of tax effort will remain in constant relative proportions among counties and municipalities with significant changes in distribution of funds resulting from varying population growth rates. Assuming the California proportion of total federal funds will remain relatively constant, as it has for the first four entitlement periods, county shares may be determined based on the changes in proportion of total State population using projections available from the State Department of Finance, Population Research Unit. The level of tax effort between a county and its municipalities, the basis for the division of the total county allocation, can be expected to remain constant. A municipality's share of funds can then be projected based upon changes in the proportion of total county population; this estimation method is shown in Table 5.09-1

A more precise method of estimation should account for the relative changes in determinant variables between different governmental entities which account for the distribution of funds. Ideally, the total federal allocation of revenue sharing monies will be known for the projection period.

The first five-year program was allocated over seven entitlement periods, as shown in Table 5.09-2.

TABLE 5.09-1

DETAILED ESTIMATE OF LOCAL REVENUE SHARING ALLOCATION

Total County Share

1972-73	Statewide apportionment of revenue sharing funds to local government	\$196,071,384	
	County apportionment of revenue sharing funds	\$ 25,622,717	
	County percentage of total state funds	13.07%	
1972-73	State population estimate	20,770,115	
	County population estimate	1,120,800	
	County % of total state population	5.40%	
1980-81	State population projection	22,659,000	
	County population projection	1,143,800	
	County % of state population	5.05%	
	Change in county projection of state population	-.06%	
1980-81	Statewide apportionment of revenue sharing funds to local government	\$215,000,000	
	County % of total state funds (13.07 * (1-0.06))	12.29%	
	Total apportionment of revenue sharing funds to county	\$ 26,423,500	

Apportionment to County Government

1972-73	Total county and city revenues	\$ 25,622,717	
	County share	12,151,235	(47.72%)
	Share to cities	13,471,482	(52.68%)
1980-81	County share	\$ 12,330,023	(47.42%)
	Share to cities	\$ 13,893,477	(52.68%)
	Total county and city revenues	\$ 26,423,500	

Individual Municipality's Apportionment

1972-73	County population	1,120,800	
	City population	74,500	
	City % of county population	6.65%	
1980-81	County population projection	1,143,800	
	City population projection	90,000	
	City % of county population	7.87%	
	Change in city proportion of population	+18.38%	
1972-73	Total county apportionment	\$ 25,622,717	
	City apportionment	605,762	
	City % of county	2.36%	
1980-81	Total county revenues (From B.)		
	City proportion as reflected in increase in total population proportion	2.79%	
	City revenue sharing apportionment	\$ 738,209	

TABLE 5.09-2

FEDERAL REVENUE SHARING APPROPRIATIONS

<u>Entitlement Period</u>		<u>Total Amount</u>	
1.	January 1, 1972 to June 30, 1972	\$2.65	billion
2.	July 1, 1972 to December 31, 1972	\$2.65	billion
3.	January 1, 1973 to June 30, 1973	\$2.9875	billion
4.	July 1, 1973 to June 30, 1974	\$6.05	billion
5.	July 1, 1974 to June 30, 1975	\$6.20	billion
6.	July 1, 1975 to June 30, 1976	\$6.35	billion
7.	July 1, 1976 to December 31, 1976	\$3.325	billion

5.09.2

COMMUNITY DEVELOPMENT REVENUE SHARING

The newly enacted Housing and Community Development Act of 1974 is a second example of a federal revenue sharing program that has given discretion to local officials as to how revenues will be expended. This program is closely linked to national objectives for housing; thus, its terms and requirements were described in the section "Impact on Housing."

As noted in the section, the program includes both "automatic" entitlements to federal monies for cities with populations of 50,000 or more and for "urban counties" that have, in combination with their cities, a population of 200,000 or more. There is also a "discretionary" element to the program, where the Secretary of the U.S. Department of Housing and Urban Development (HUD) may make allocations to smaller cities or counties. The regional offices of the U.S.

Department of Housing and Urban Development have prepared estimates of the maximum funds that might be available to each jurisdiction under the program. Because of the newness of the program, these estimates should be used until an historical record of experience with the 1974 Act can be established.

If an impact analysis situation involves the uses of the 1974 Act or has an impact on it, forecasts of revenues available could reasonably be based on a projection of a uniform per capita entitlement for the jurisdiction. The per capita amount to be used would, in turn, be based upon the initial application of the affected jurisdictions that was submitted to HUD.

5.09.3

FEDERAL GRANTS

In spite of the trend toward "revenue sharing" (i.e., allocations of federal revenues to state and local government without highly restrictive requirements about the use of these revenues), categorical federal grants that are specific in purpose and intent continue to play a significant role in county government finance. In 1973, Sacramento County received about 25% of its total revenues from federal grants. Since then, allocations for grants are at the discretion of Congress, and forecasting the level of grants to Sacramento County is difficult. Only if the grants were allocated on a per capita basis would development make a direct impact on this revenue source.

These revenues are discussed in the section on service costs. They are not usually part of impact analysis since the changes cover the service, administration costs and thus have no impact.

The county and special districts within the county collect revenues for the performance of certain services. Rate schedules provide for the collection of fees for engineering inspections, building inspections, building permits, solid waste disposal, water service, etc., as well as certain development fees charged to cover the costs of extending services (sewer and drainage) to the development. For the county, revenues from these fees constitute only a small portion of the total, and, as a group, may be based on average per capita estimates. For other districts, these revenues are more important but, since they represent the expected cost of services that are to be provided, the impact of development on their budgets also tends to be neutral.

The following discussion treats a special budgeting feature of Sacramento County and is relevant to impact assessment when budget impact on the unincorporated area is of interest. The methodologies for calculating the most important service costs and revenues have been provided in Section 4 and this section, respectively. The revenue/cost relationships of the Fund for fiscal year 1974-75 may be of interest to the analyst as an indication of relative magnitudes.

Sacramento County has established separate revenue and expenditure funds for unincorporated area services. These are the services the county provides only in the unincorporated area, rather than countywide. Within incorporated areas, they are provided by cities and, thus, are characterized as "city-type" services.

Historically, counties have financed these services from the general fund, leading to complaints from cities of tax inequity because city taxpayers paid both the county general tax -- a part of which went for the services the cities didn't receive but the unincorporated area did -- and the city tax, which financed these services inside the city. Here the county has tried to avoid these complaints by:

1. Identifying and costing those services, or portions of services, provided only in the unincorporated area.
2. Identifying those revenues coming only from the unincorporated area.
3. Budgeting the services within the revenues, so that no general funds or taxes are involved.

Unincorporated area revenues are also like those the cities collect, so that the result is an unincorporated area budget that is similar, in content, to a city budget. Sacramento is the only county known to use this approach. It would probably not be financially feasible -- that is, would probably require a general fund subsidy or an unincorporated area tax rate -- except for the very large shopping centers and, therefore, sales tax revenues in the unincorporated area.

In terms of fiscal impact, added costs and revenues that, in other counties would impact the general fund, impact the Unincorporated Area Services Fund only. This Fund carries the number 013 in the county budget and is often called "Fund 13." The services and their 1974-75 budgeted costs are:

Animal Control	\$ 671,872
Regional Transit	33,600
Planning Services	
Environmental Impact Section	197,006
CDEPA	69,423
Planning and Zoning (Board of Supervisors)	293,200
Planning Department	588,058
Planning Commission	86,516
SRAPC	32,395
Sheriff's Protection	8,749,436
Weed Control	48,584
Building Inspection	1,383,726
County Administrative Services	
Accounting	150,000
Tax Collector - Treasurer	164,357
Administration and Personnel	868,927
Public Works Services	
Administration and Miscellaneous	334,500
Surveyor	127,004
Water Resources	258,022
Assessment Districts	39,133
Subdivision Processing	399,828
Roads	1,311,107
Bikeways	241,000
Reserves	
Contingencies	1,200,000
General	245,783
Revenue-Sharing Reimbursement	<u>(150,000)</u>
	\$17,343,477

Revenues are:

Sales Tax	\$11,050,000
Franchises	94,000
Property Transfer Tax	185,000
Animal Licenses	371,200
Business Licenses	258,500
Building Permits	897,000
Zoning Permits	50,000
Mobile Home Permits	40,000
Mobile Home Park Fees	25,000
Other Licenses and Permits	52,250
Other Taxes	20,300
Interest	150,000
Cigarette Tax	1,510,989
State Aid	225,000
Federal Aid	95,769
Plan Checking Fees	315,372
Subdivision Fees	26,000
Humane Services	50,000
Other Service Fees	144,900
Other Revenue	4,000

\$15,565,280

SECTION 6

6.00

IMPACTS ON EMPLOYMENT

6.01

METHODOLOGIES FOR FORECASTING EMPLOYMENT

The following methodologies can be applied to forecast employment impacts in Sacramento County. Generally, the choice of method will reflect the availability of data. The analyst should be particularly aware that good analysis does not improve poor data. Highly sophisticated analytical techniques cannot produce more reliable estimates if the data do not accurately reflect existing conditions. When time and/or cost prohibit improving the data base, the forecast results must be interpreted in view of the assumptions or methods on which the analysis is founded. Sophisticated methodologies may not be more appropriate than relatively straightforward methods.

The forecast methodology also must produce results that are reasonable. The less sophisticated techniques often cannot integrate physical and economic constraints into the forecast. For example, the development of specific activity may be limited by the availability of space, power, or water, or other market conditions. While this type of constraint does not necessarily dictate the type of analysis to be utilized in the forecast, the analyst must be certain that his forecasts of employment are consistent with these limitations.

6.01.1

EXISTING EMPLOYMENT FORECAST

Existing forecasts may be useful to the analyst if the assumptions on which they are based are consistent with his overall analysis. State agencies prepare employment forecasts that may

be useful. Developers also will often project employment levels for their projects as part of an economic impact statement.

Regional or national employment forecasts also can be used. For example, employment projections exist for the Sacramento SMSA. County employment can be assumed to follow the trend established by the regional or national forecasts. While this produces an employment forecast which assumes proportional growth will occur in all parts of the forecast area, it may not be an unreasonable assumption.

PRORATING SMSA FORECAST TO THE COUNTY

	<u>SMSA</u>	<u>County</u>
1972 (Actual)	307,600	258,500 (84% of SMSA)
1975 (Forecast)	329,500	276,900 (84% of SMSA)

The analyst needs to be aware of factors that will affect the one-to-one relationship assumed between regional or national forecast trends for a specific industry and the level of that activity within the county. If auto sales are forecast downward nationally, it would be reasonable to expect a reduction in auto sales in the county also. However, other industrial sectors may not respond similarly to its national counterpart. With variation in the product mix within a broad industrial sector, each sector would have to be examined independently to determine its relationship to the national economy.

Trend analysis forecasts the employment impact by assuming that existing trends will continue into the future. The analyst may observe a constant increase in employment (e.g., an increase of 100 employees per year) or a constant rate of change (e.g., 10% growth each year for the past five years) and then apply this trend to existing employment levels to forecast future employment. This analysis, while relatively simply to apply, ignores changes in factors which may be influencing this trend. Changes in the national economy, limited mobility of some inputs to the industry, or development of similar facilities in an adjacent area may alter the employment trends within Sacramento County. The analyst should consider these types of factors and how they may influence these trends.

TREND ANALYSIS

	<u>Constant Growth</u>	<u>Constant Growth Rate</u>
1972	5,200	4,950
1973	5,400	5,445 - 10% increase
1974	5,600	5,990 - 10% increase
1975 (Forecast)	5,800	6,588 - 10% increase

Regression analysis, a more sophisticated trend analysis, allows the analyst to control factors that influence the level of employment. Through the use of a computer routine, the analyst can test the relationship of factors such as the level of national economic activity or the level of personal income to the level of employment in the county. The computer program derives a mathematical relationship between employment and these other

factors identifying the statistical significance of the relationship. By using forecasts of these related factors, employment forecasts in the county then can be computed.

Regression analysis permits the analyst to specify and test non-linear as well as linear relationships between employment and other variables, although generally a linear relationship is used. As in trend analysis, the basic assumption remains that historic trends will continue in the future.

While regression analysis is more sophisticated than trend analysis, its application is relatively straightforward once the analyst has access to the computer program. The analyst need not fully understand the mathematical manipulations used to make the estimate but must be able to interpret the statistics and results.

6.01.4 EMPLOYMENT MULTIPLIERS

To the degree that activity in any single industry is related to the activity of all other industries either through the sale of its outputs, the purchase of its input, or through the personal services purchased with the income it generates, the employment multiplier is an expression of the interrelationships. It is the ratio of total employment in all industries that is directly or indirectly related to the level of employment in the specific industry. For each auto production worker, there are other employees producing parts and materials that make up the auto. There is the dealer and repairmen who maintain the auto. There are sales clerks, doctors, and lawyers who provide the production worker and other workers with personal services. Any change in the level of auto production will not only directly affect the level of employment of auto production workers but eventually all of the indirect employment as well. The employees who produce the parts and materials, the dealers, and servicemen and all other people supported by the purchases of these workers will eventually be affected by this change.

The application of the employment multiplier is relatively straightforward. If an employment change is forecast for a specific industry, the total employment impact is simply the forecasted change times the multiplier.

Employment multipliers were developed by export base theory. In this theory, the economy is divided into two sectors, one which produces goods and services for export, and the other which produces goods and services to meet the demand supported by the local economy. It was recognized that a change in the level of export activity will not only have a direct effect on employment in the export sector but also will affect local service employment through its impact on the local economy. Application of the theory requires the economy be divided into two sectors. We suggest that Sacramento County use the categorizations shown in Table 6.01-1. Since employment data for the industrial categories are available from the Employment Development Department, the county can monitor the data and change the multiplier if significant change occurs.

As shown in the employment multiplier calculation p. 236, total employment in the area changed by 41,600 between 1970 and 1974, compared with a 10,000 change in base employment over the same period. An employment multiplier of 4.1, however, overstates the actual multiplier effect since 4.1 reflects both changes in the structure of employment for the area as well as growth attributable to the multiplier effect. Since changes in structure, such as the increase in service employment that accompanies a mature area's economy, must be isolated from the multiplier effect, the analyst should apply a ratio of 2.5 or 2.6 to base employment to estimate total employment. This ratio is consistent with the ratio of base employment to total employment for Sacramento County in 1970 and 1974.

TABLE 6.01-1

EMPLOYMENT TRENDS, SACRAMENTO METROPOLITAN AREA
1970-1974

	1970 ¹ (000's)	1974 ¹ (000's)
Base Employment		
Mineral Extraction	0.1	0.3
Manufacturing	22.2	22.8
Federal Government	29.5	26.8
State Government	<u>54.0</u>	<u>66.0</u>
Sub-Total	105.8	115.9
Service Employment		
Contract Construction	11.6	13.4
Transportation/Utilities	17.3	17.8
Trade	54.4	66.5
Fin. Ins. Real Estate	10.4	12.9
City and County Government	<u>25.0</u>	<u>29.5</u>
Sub-Total	157.2	188.7
Total Employment	263.0	304.6

¹Year average.

Source: Health and Welfare Agency, California Employment Development Department, Employment Data and Research Division, "Wage and Salary Workers in Non-Agricultural Establishments," 1970 and 1974.

EMPLOYMENT MULTIPLIER

	<u>1970</u>	<u>1974</u>	<u>Change</u> <u>1970-1974</u>
Employment Change in:			
Base Employment	105.8	115.9	10.1
Total Employment	263.0	304.6	41.6
Employment Multiplier ¹			4.1

¹See text discussion above on qualifying multiplier effect. If the analyst wishes to project total employment for the area based on estimated base employment, he should apply the ratio of 2.6 or 2.5 total to base employment which is consistent with the 1970 and 1974 ratios of total to base employment.

Multipliers also can be developed from input-output models. This analysis recognizes that there are many sectors within an economy rather than just two, and each sector is related to all other sectors to some degree. Once the direct relationships are established, computer routines can be used to calculate the employment multipliers for each industrial sector.

Input-output analysis requires more data and is more costly to develop. Input-output (I-O) tables, however, have been developed for county metropolitan areas. County based input-output analysis is an ongoing project under the direction of George E. Goldman of the Cooperative Extension, University of California, Berkeley. This group plans to do an I-O analysis of Sacramento County in 1975. Assuming this study proceeds as anticipated, good data will be available to trace the impact of a new project through the economy.

The use of an employment multiplier assumes that there will be no change in the inter-industry relationships over the time span of the forecast. Changes can occur in the production process due to changes in technology or as firms alter their production processes in response to relative price changes.

Trading patterns also may change. For a relatively small area such as Sacramento County, the multipliers reflect trading relationships rather than the technical relationship between the industries. A particular industry may have a small multiplier because it purchases most input from outside the county. If the supplier would now locate within the county, the multiplier may increase significantly.

6.02

LABOR FORCE PARTICIPATION

The labor force participation rate is the ratio of the labor force employment and unemployment to the total population. By using the rate (approximately 43% in California) with a forecast of the population such as that provided by the State of California, Department of Finance, and an estimate of the labor force participation rate, the analyst can estimate the size of the labor force.

LABOR FORCE PARTICIPATION RATE

Population, 1975	580,000
Labor Force Participation Rate	43%
Estimated Labor Force	249,000

Labor force participation rates can change as people enter or drop out of the labor force. Attitudes toward work or changing opportunities for jobs may cause this transition. The rate also

may differ between groups within the population; high income families or families with many children may be less likely to have the wife in the labor force. The analyst needs to consider the labor participation rates specific to the population's characteristics.

6.03

ESTIMATING CONSTRUCTION EMPLOYMENT

Decision-makers may desire information as to construction and related trades employment that will be involved in the development of a project. The impact of the construction phase may be large enough to warrant planning consideration. Extensive development often requires outside labor that will impact on schools and other public services as well as on secondary employment.

Construction employment (not including related employment) can be estimated very accurately as soon as schematic plans of building exist. The methods described below are sufficiently general to use in most situations, including proposals prior to architectural work, but they lack pinpoint accuracy.

The basic method of projecting construction employment is to estimate project expenditures, proportion the expenditures between local labor and all other costs, and then convert local labor costs into an estimate of employment. The basic steps are as follows:

The procedures for estimating project costs are given in Section 5; refer to that section to determine the cost of the projects, including family housing, apartments, residential subdivisions, offices, warehouses, and retail developments.

The proportion of labor to other costs varies with the type of project, value of the land, availability of financing, and efforts required to market the product. Generally, labor represents 15-25% of total project costs. Proportions of costs attributable to land, financing, and selling expenses under different types of projects are presented in the section on fiscal analysis.

Construction costs, which reflect materials as well as labor, generally average 45-50% labor and 50-55% material costs. The proportion of local labor to total labor costs depends on the availability of local labor at the project location. The analyst must estimate the proportion of labor that will come from within the county. Rough estimates of proportion are probably accurate. If more accuracy is desired, the Census shows the number of construction craftsmen residing in the city. The analyst should also consult local district trade union offices for information about the number and availability of skilled tradesmen.

CONSTRUCTION EMPLOYMENT

Estimated Total Cost, Exclusive of Land	\$500,000	
Percent Labor Costs	45%	
Total Labor Costs	\$225,000	
Average Annual Wage	\$13,900	17.3 Man Years
Construction Period	2 Years	
Average Employment	9	

The most commonly used measure of construction employment is man-years, the total estimated time in years that will be worked by all employees. Man-years of construction employment is derived by dividing the expenditures of local labor by an estimate of average annual wages and fringe benefits.

In all lengthy development periods, it may be desirable to indicate the time framework over which there will be employment. The timing of specific components may provide explicit plan information; but in most cases, it is sufficient merely to indicate the construction period and the average employment throughout that period.

6.04 ESTIMATING UNEMPLOYMENT

Unemployment in a local area is due both to local factors and conditions in a larger economy. Since the latter conditions are beyond the control of local efforts, the usual practice when making unemployment projections is to assume a reasonable national or state unemployment rate. It is difficult to estimate how unemployment will change due to a specific project. Large projects may cause unemployment to increase in the short-run as people move into the area in anticipation of jobs. Presently unemployed people may not have suitable skills to fill newly created positions. The reasonable assumption is that in the long-run it is likely that the unemployment rate will return to approximately the same level it would have been without the new development.

If no other information is available, a reasonable estimate would perhaps be that half of the new jobs would be filled by persons unemployed or not in the work force in the short-term, with a

gradual transition to a long-term stabilized situation taking about two years. The situation is different, however, in areas where employment has declined and unemployment has increased. In this case, the improvement may be permanent as it only brings employment opportunities up to the level of nearby areas.

SECTION 7

7.00 IMPACTS ON HOUSING DEMAND AND SUPPLY

7.01 INTRODUCTION

The purpose of undertaking an impact assessment of general plans, policies, and individual projects in housing demand and supply is to consider an essential need and assess to what extent this need is being met, and how it can be met best. Making adequate housing available to all population segments (age, income, and racial groups) within the jurisdiction is accepted as essential. Housing is a need that public agencies address for two main reasons: first, to provide assistance to persons whose needs are not met by the private sector; and, second, to assure rational development of housing in relation to other land uses and public service systems.

The impact assessment is a disclosure document. It presents findings which include interpretations of how plans, policies, and specific projects meet community goals for housing and related services. The fiscal evaluation process which is emphasized here in project assessment is designed to make explicit the cost and revenue implications of a particular housing development. This includes considering a proposed project in light of the alternatives in order to know the available courses of actions and facilitate decision-making on an explicit basis.

As previously discussed, the general framework for economic impact analysis distinguishes between policy and planning on one level and individual projects on the other level. Accordingly, in the paragraphs below housing is discussed first in the context of plan and policy formulation and then in terms of individual project impact.

7.02

FORMULATION OF PLANS AND POLICIES

7.02.1

EXISTING PLANS AND POLICIES

A list of currently operative plans and policies related to housing in Sacramento County is presented in Table 7.02-1 as a reference to the analyst. New community or neighborhood plans should be developed in relation to the general plan housing element and other operative community plans.

7.02.2

CONSIDERATIONS RELEVANT TO HOUSING PLAN AND POLICY FORMULATION

A set of questions relevant to housing plan and policy formulation is given in Section 2.03.4.2. The following paragraphs discuss housing need, costs, and public assistance programs which are germane to formulating a comprehensive housing plan.

7.02.2.1

Housing Need

The number of housing units projected should meet the need for new units due to population growth, replacement of units due to publically and privately initiated demolitions, losses due to deterioration, and also should include a "frictional" vacancy factor.¹ In addition, housing need extends to providing adequate dwellings to households whose needs are not met through private sector housing production. These special housing needs generally include the poor, the elderly, single parent families, and ethnic minorities.

¹

For a definition of frictional vacancy, see Section 7.02.2.1-1, Step 3.

TABLE 7.02-1

PLANS AND POLICIES RELATED TO HOUSING
SACRAMENTO COUNTY, FEBRUARY, 1975

A. Areawide Plans

Sacramento County, General Plan, Adopted April 18, 1973

- . General Plan, Technical Report, Revised October, 1974
- . General Plan, Economic Analysis, March, 1972

Sacramento Regional Area Planning Commission, Regional General Plan, Housing Plan and Program, May, 1974

B. Community Plans

- . Arden-Arcade, Summary, Map, Technical Report, 1965.
- . Carmichael, Preliminary Community Plan, January, 1974.
- . Citrus Heights, Summary, Map, Technical Report, 1971.
- . Cordova Co-munity Plan, 1966 (see also East Central Area General Plan).
- . Delta Rural, Sacramento Delta Plan for 1990, Adopted 1964.
- . East Central Area General Plan, Summary, Map, Technical Report, 1966-67.
- . Elk Grove, Preliminary Community Plan, February, 1975.
- . Fair Oaks, Community Plan, Technical Report, Map, January, 1975.
- . Folsom Area General Plan, 1965.
- . Galt General Plan, 1975-1995 Final Draft.
- . Isleton General Plan, 1973.
- . Laguna Creek, included in South Sacramento, See also Southwest Area Plan, 1965. Study in progress.
- . Natomas, see SRAPC Airport Land Use Commission Policy Plan, July, 1974.
- . North Highlands-North Central, Community Plan, Technical Report, Map, April, 1974.
- . Orangevale Community Plan, Summary, Map, Technical Report, 1969-70.
- . Rio Linda-Elverta Community Plan, Summary, Map, Technical Report, 1970. Preliminary Community Plan, March 1975.
- . Southeast Central. See Southeast Area Plan, 1965.
- . South Sacramento, in preparation. Also see Southwest Area Plan, 1964.
- . Southwest Area Land Use Plan, May, 1964.

Source: Sacramento County Community Development and Environmental Protection Agency.

7.02.2.1-1 Methodology to Estimate New Unit Demand

The following methodology to project new unit demand is intentionally concise because data on housing needs due to population growth is readily available from SRAPC's housing module (current year estimates and projections to 1990). A full description of estimating units lost annually due to demolition and deterioration and incorporating a vacancy factor is set forth in Williams & Mocine, "Proposed Sacramento City and County Housing Element," September, 1973, pages 33-39, and a description of the county's housing and related needs is contained in the county's annual application to HUD for assistance under the Housing and Community Development Act of 1974.

Outline of Methodology to Project New Dwelling Unit Demand

Step 1: Estimate Demand for New Units Based on Population Increase

- (a) Estimate population growth.
- (b) Check for occupancy in group quarters/institutional housing (i.e., military barracks, school dormitories, hospitals, etc.).
- (c) Convert estimated population in household units into projected number of households.

Note: The average household size in Sacramento County is estimated to be 2.8 persons per household through 1980, with an average occupancy of 3.3 persons in single family dwellings and 2.2 persons per multi-family unit.

- (d) Allocate projected households into single family, multi-family, and mobile home units, consistent with area trends. Refer to SRAPC Housing Module for area trends.

Step 2: Estimate Losses Due to Demolition and Deterioration

The Sacramento City Building Inspection Department estimates future publically initiated demolitions to average 350 per year and the county estimates approximately 42 privately initiated demolitions per year through 1980. If the analyst wishes information on a particular area, he should consult the appropriate building inspection department.

Generally, a 1% to 2% annual demolition rate based on the number of existing housing units will be appropriate for Sacramento County through 1990.

The need to replace deteriorating units will vary by area and will depend on the age and value of the structure. Generally, units constructed before 1930 and valued under \$10,000 or \$100/month rent for single family units are most likely deteriorating. Estimates by area are available through the 1975 Census and SRAPC's technical input to its May, 1974 Housing Plan and Program. Countywide data on housing deterioration are also contained in Williams & Mocine's Housing Element and the County's annual HUD application (referred to above).

Step 3: Allow for "Frictional" Vacancy

Frictional vacancy is defined as the minimum required vacancy to allow free play in demand and supply functions of the competitive market.

Generally, an overall vacancy rate of 1% for owner-occupied homes and 5% for rental units will suffice for estimating purposes.

Step 4: Sum Total Estimate of Steps 1-3

The table below estimates the total new housing units needed in Sacramento County for 1970-1980.

	Total Units Needed <u>1970 - 1980</u>	<u>Average Annual Increment</u>
Growth in Population	44,180	4,418
Replacement Due to:		
Public Action Losses	1,300	130
Private Action Losses	440	44
Annual Deteriorated Increment	940	94
Backlog of Deterioration	5,040	630 ¹
Frictional Vacancies	<u>1,278</u>	<u>128</u>
Total Needed	53,178	5,444

¹Annual need, 1973-1980.

Source: Williams & Mocine, Proposed Sacramento City and County Housing Element, September, 1973.

7.02.2.2 Adequate Zoning for Housing Need

This question is answered by comparing the housing need projections with the general plan, a community plan residential land use element. The designated residential acreage times the zoning densities should be sufficient to accommodate the long-range housing needs.

The analyst should refer to data prepared by the Sacramento Planning Department in connection with the "holding capacities" of various areas of the county. (See Figure 7.02-3.)

7.02.2.3 Housing Cost in Relation to Income

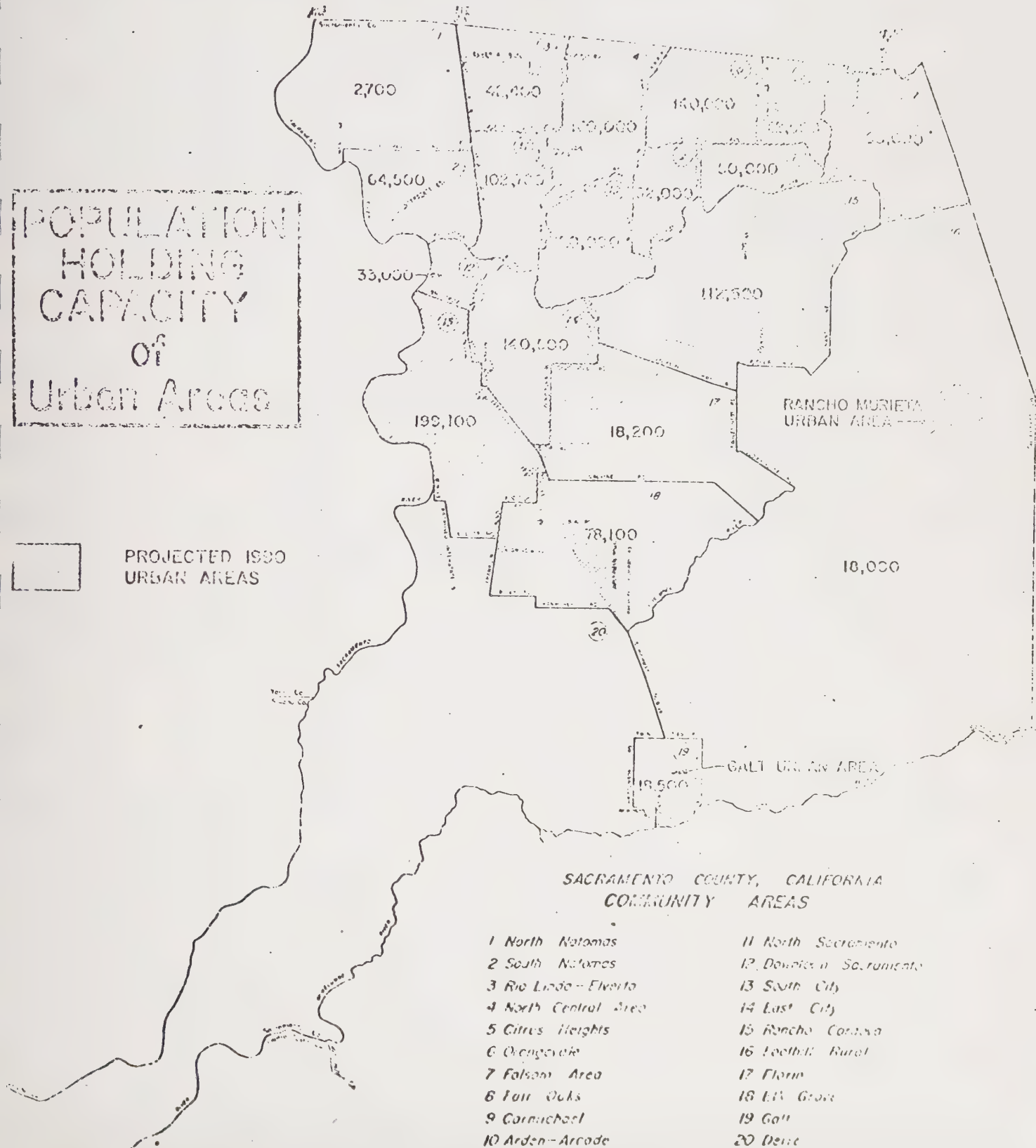
7.02.2.3-1 Cost Trends

Housing costs have been rising faster than the cost of living in the last decade and are likely to continue to do so in the next decade. Rising wage rates in the construction trades, expenditures required for environmental purposes, property taxes, and interest rates have been key factors in the increased cost of housing. Assumptions as to the trend of these factors in the future provide a basis for the projection of future trends. No formulas exist which yield scientifically determined estimates of future housing costs.

A more important contribution the analyst can make is to call attention to the impact on local housing costs of local plans and policies. In some cases, the analyst can identify and quantify the impact (e.g., an increase in the property tax). Often, however (and to some extent in every case), the impact on prices arises through changes in housing market supply or demand. In these cases, the analyst can call attention to the impact, describe whether it raises or lowers costs, and, if possible,

FIGURE 7.02-3

POPULATION BY COMMUNITY AREAS



estimate the order of magnitude of the impact. An approach to analysis of these market supply and demand situations is described in Section 8 on land use.

7.02.2.3-2 Housing Costs and Corresponding Income Categories

The cost of housing as a percent of income is considered a relevant measure of needs and more important than housing cost per se. Federal government policy currently accepts 25% of gross income or 35% of net income as the appropriate share of income to be allocated to monthly housing. The rationale of this policy is that households having to budget a higher share would find it difficult to pay for their other essentials. Table 7.02-4 shows housing costs (applicable to both ownership and rental units) and the corresponding gross income categories required to meet these housing costs.

SRAPC has carried out an analysis of housing need in relation to income distribution in their Quantitative Housing Needs report of June, 1974. A summary of these estimates for Sacramento County is presented in Table 7.02-5. As shown, by subtracting net changes in housing units by cost categories from net changes in households by income category, the difference shows net increases in housing need by household income category. On the basis of data available from SRAPC, similar quantification of need by geographic area down to minor traffic zones can be prepared.

The countywide trends that emerge from the SRAPC 1970-1980 projections in Table 7.02-5 are:

TABLE 7.02-4

HOUSING COSTS AND CORRESPONDING INCOME CATEGORIES

(All housing cost and income categories, for all years, have been converted to 1970 dollars.)

<u>Category</u>	<u>Housing Costs</u> ¹	<u>Corresponding Income (Gross)</u> ²
A	Less Than \$50	Less Than \$1,831
B	\$ 50 - \$ 90	\$ 1,832 - 3,754
C	100 - 149	3,755 - 5,681
D	150 - 199	5,682 - 7,633
E	200 - 249	7,634 - 9,600
F	250 - 299	9,601 - 11,645
G	300 - 349	11,646 - 13,709
H	350 or More	13,710 or More

¹Including gross rent or principal interest, FHA premium, upkeep, and utilities.

²Housing cost equals 35% net monthly income. Income figures are recalculated to show gross income.

Source: SRAPC, Quantitative Housing Needs, June, 1974.

TABLE 7.02-5

COMPARISON OF NET CHANGES IN HOUSING STOCK
BY MONTHLY COST DISTRIBUTION WITH NET CHANGES
IN HOUSEHOLD INCOME DISTRIBUTION BY INCOME CATEGORY,
SACRAMENTO COUNTY 1970-1980

<u>Category</u>	<u>Change in No. of Housing Units by Cost Distribution¹ (no. du)</u>	<u>Change in No. of Households by Income Distribution (no. households)</u>	<u>Increase in House- holds with Housing need by Income Category (no. households)</u>
A	0	1,145	1,145
B	-500	6,295	6,750
C	8,344	2,738	0
D	8,335	0	0
E	7,219	0	0
F	1,385	0	0
G	867	1,053	136
H	15,226	29,634	14,410
Total	40,875	40,875	

¹"Cost" refers to monthly housing cost distribution.

Source: SRAPC, Quantitative Housing Needs, June, 1974.

- . The supply of housing of less than \$100 per month is rapidly decreasing.
- . A large number of multiple family units (apartments) will develop in the \$100 to \$250 range.
- . The largest single category of units to be developed is in the \$350 and greater range. This represents the majority of single family units.
- . There will be an increase in the number of households with incomes less than \$5,000. As a percentage of the total, this category will remain relatively constant.
- . The \$5,000 to \$10,000 range should show a small absolute decrease and a substantial percentage decrease.
- . Three-fourths of the net increase will be among households with a net income greater than \$12,000 (after federal income tax).
- . The total increase in unmet demand (need for subsidization) is among those with incomes less than \$5,000.
- . Unmet need among those of moderate incomes will decrease. The number of housing units in this category will increase while the number of households will decrease. Problems could develop among households with special needs since the increase in units is made up almost entirely of multi-family units.

7.02.2.4 Public Housing Assistance

The primary source of publically assisted housing is and will continue to be the federal government, specifically through the Housing and Community Development Act (HCDA) of 1974, an omnibus program that essentially replaces previous federal housing programs and defines the current scope and funding available in housing and related services.

Administratively, public housing assistance in the Sacramento area is under the jurisdiction of the City Housing Authority, the County Housing Authority, the City Redevelopment Agency, and the County Redevelopment Agency. Both of the city agencies are responsible to the City Council and, similarly, the county agencies are responsible to the County Board of Supervisors. Coordination of housing programs is enhanced by the fact that only one staff, the Sacramento Housing and Redevelopment Agency, serves both the city and county.

Sacramento County's 1975 application for funding under the 1974 Act requests funds for public works, including water and wastewater district improvements, funding for housing rehabilitation, special projects for the elderly, legal assistance, planning, and administrative programs. Some of the assistance will be county-wide; however, Rio Linda, North Highlands, Fruitridge, Citrus Heights, Galt, and the Delta area will receive the most attention. Table 7.02-6 contains a list of the specific programs designated for HCDA funding for fiscal year 1975-76.

The analyst should be aware of the program objectives of the County's Housing Element and the Community Development Program. In assessing the impact of private (non-subsidized) housing projects, the analyst may be able to relate the private project to public goals. It is federal and county policy to promote integration of all income groups in neighborhoods. Furthermore, where public works projects such as those specified in the HUD application will be partially funded by property tax revenues or assessments, the addition of new (non-subsidized) units may have a positive effect on a district's financing capability.

TABLE 7.02-6

HOUSING AND COMMUNITY DEVELOPMENT PROGRAMS
DESIGNATED FOR FUNDING, SACRAMENTO COUNTY, 1975-76

Agency	Program	Estimated Cost (000's)
County Community Development and Environmental Protection Agency	Development of central control of community development process through addition of administra- tive, planning, and technical staff to agency-	\$120
St. Mark's Methodist Church	Maintenance of low and moderate income housing through repairs, homeowners counseling, and assistance.	48
Sacramento County Welfare Department	Unmet shelter needs, relocation assistance, grants to upgrade homes, emergency repairs.	86
Sacramento Housing and Redevelopment Agency	Rehabilitation grants for elderly to make emergency repairs	130
Alta Mesa Fire District	Development of a fire station in low income area with no fire station.	22
Herald Fire Protection District	Construction of new fire station to replace substandard building.	35
Rio Linda County Water District	New water supply facilities to replace substandard facilities in low and moderate income area.	157
Northridge Water Improve- ment District #5	Upgrading and installing water systems to provide water for domestic consumption and for fire protection in low and moderate income area.	52
Sacramento County Department of Public Works	Sewage collection system in com- munity of Courtland.	50
	Water Supply Study Plan.	166
Shiloh Arms, Inc.	Facility for child care center and to facilitate needs of senior citizens and other deprived persons.	70
Sacramento Area Economic Opportunity Council	Provision of low cost meals, transp ortation and program activities for low income senior citizens.	81
South Area Emergency Housing Center, Inc.	Assistance to low and moderate in- come families in emergency situations by providing child care, counseling, etc.	18
San Juan Unified School District	Community Service Center for low and moderate income families located in area isolated by freeways and without public transportation. (Lichen area)	31
	Trasportation assistance to elderly through RSVP on an on-call basis	6
Legal Aid Society	Legal assistance on tenant/landlord and housing related problems.	128
Unspecified local option		55
TOTAL		\$ 1,255

7.03

IMPACTS OF INDIVIDUAL PROJECTS ON HOUSING

7.03.1

INTRODUCTION

This is where the bulk of work in housing impact assessment will occur. It can be mentioned again that housing impacts are generated by a variety of development projects, including construction of facilities for export base industry and commerce, facilities for population-serving employment, new transportation or utility system, etc., as well as by housing development itself.

7.03.2

NEED AS REFLECTED IN VACANCY RATES

Section 7.02 above discussed housing need in terms of population growth, income levels, and current housing programs. Since the majority of housing impact assessments will be of privately initiated, profit-oriented projects, "need" will usually refer to the marketability of the proposed units. In this context, vacancy rates are the analyst's most efficient measure of supply and demand relationships.

The implications of high and low vacancies are felt in the price of housing. High vacancies will usually lead to price reductions until the market can absorb the units at some price. Conversely, low vacancies will generate price rises; as the households demanding units exceed the supply, the price is bid up.

Clearly, low vacancies reflect shortages of supply and should be of more concern to the analyst than an overbuilt situation. If, however, there is a highly questionable market and there is a proposal to build housing for that market, the analyst should raise the issue of market feasibility. This is particularly true where public as well as private efforts are involved, e.g., if a

rezoning, street widening, or utility service expansion is requested in connection with development of the proposed housing.

Information relating to the vacancy rate of existing housing units in Sacramento County is available from several agencies. The list below describes information which is available from those agencies which were contacted.

Postal Vacancy Survey: The U.S. Postal Service conducts an annual survey of housing vacancy in conjunction with the U.S. Department of Housing and Urban Development (HUD). Information is compiled for each of the twenty-four postal service areas in the county. The survey includes data on residences (defined as one stop with one possible delivery), apartments (more than one possible delivery at a single stop), and mobile homes, including the total number of units, the number of vacant units, and new (vacant) units. A Post Office spokesperson has indicated that the information in this survey is not as accurate as Census data.

FHA Vacancy Survey: The Sacramento Insuring Office of the Federal Housing Administration conducts a vacancy survey of multiple family dwelling units in the Sacramento Valley area. The survey is conducted on roughly an annual basis. Data are collected for ten geographical areas within metropolitan Sacramento, as well as for numerous other communities. Information provided indicates the total number of units surveyed, the number and percent vacant, and newly completed units.

FHA Unsold Inventory List: The Sacramento Insuring Office of FHA also publishes an annual report on single family homes which were built in the preceding year and remained unsold at the end

of that year. The list includes only new homes which were approved for FHA financing.

Sacramento County Refuse Collection "VEX" Data: The Sacramento County Refuse Collection Service maintains data on refuse collection accounts which are either vacant, exempt from billing, or which have never been billed (VEX). This information is not compiled or published except upon special request. Data are stored in the agency's computer data bank, but could be retrieved if authorization were obtained. Information could probably be compiled by housing type and geographical area (e.g., zip code).

7.03.3 TARGET HOUSING POPULATION AND SCHOOL CHILDREN

The target market for a housing development is determined first by price and location and then, to a lesser extent, by qualitative factors as design. The proponent of the housing project can provide a description of whom the residents will most likely be.

Section 4.02 on Elementary and Secondary Education contains "multipliers" to estimate the number of school children by housing type for the San Juan and Elk Grove Unified School Districts (USD). McDonald & Smart, Inc. has developed area specific multipliers from residential surveys of California communities to estimate school enrollment by housing type. Table 7.03-1 summarizes the results of a Marin County residential survey of new condominium and townhouse units.

For areas where the school district lacks reliable estimating techniques to project the number of school age children generated by a housing project, the CDEPA may wish to conduct a sample survey to generate usable multipliers. The Sacramento

TABLE 7.03-1
SURVEY BASED MULTIPLIERS FOR NUMBER OF SCHOOL CHILDREN PER UNIT TYPE

Type of Units	Monthly Cost Range	No. Units	Number of Children				Multipliers ¹			
			Pre-School	Elem.	Sec.	Total	Pre-School	Elem.	Sec.	Total
Apartments										
Efficiency	\$150-200	0	-	-	-	-	-	-	-	-
1 Bedroom	200-275	147	0	0	0	0	-	-	-	-
2 Bedrooms	275-375	133	9	21	15	45	0.07	0.16	0.11	0.34
3 Bedrooms	350-475	100	19	31	35	85	0.19	0.31	0.35	0.85
4 Bedrooms	450+	<u>5</u>	<u>1</u>	<u>4</u>	<u>3</u>	<u>8</u>	0.20	0.80	0.60	1.60
Total		385	29	56	53	138				
Condominiums										
Efficiency	\$175	2	0	0	0	0	0	0	0	0
1 Bedroom	180-275	4	0	0	0	0	0	0	0	0
2 Bedrooms	275-375	747	65	65	0	130	0.09	0.09	0	0.17
3 Bedrooms	300-400	426	67	59	13	139	0.16	0.14	0.03	0.33
4 Bedrooms	400+	<u>23</u>	<u>3</u>	<u>17</u>	<u>5</u>	<u>25</u>	0.13	0.74	0.22	1.09
Total		1,202	135	141	18	294				

¹Multipliers are derived by dividing the number of school children in each school grade (i.e., type of unit) by the number of total units of that type of unit.

Source: McDonald & Smart, Inc., "Larkspur Environmental Impact Report," January, 1975.

County Office of Education provided technical assistance to Elk Grove USD for its 1973 survey and should be contacted by CDEPA if such surveys are contemplated.

7.03.4 CONSTRUCTION EMPLOYMENT

This is an employment impact question, and one that is relevant to impact assessment at times of high unemployment. The methodology for estimating construction employment is presented in Section 6.03.

7.03.5 PERMANENT EMPLOYMENT AND ITS LOCATION

It is germane to ask what proportion of new residents will be in the work force and where their jobs will be located in connection with land use and transportation planning. Remote residential sites may generate heavy traffic volumes which should be noted.

7.03.6 DENSITY APPROPRIATE TO EXISTING PLANS

The analyst should check for conformity with the general plan and zoning ordinances. If the project is not compatible, the analyst should consider the degree of incompatibility with existing land uses and plans. When a project is of a scale that has plan implications, the project should be analyzed from a plan perspective. Information pertaining to appropriate densities is contained in Section 8 on land use.

7.03.7 FISCAL IMPACTS OF HOUSING

The major emphasis in fiscal impact analysis is to uncover potential problems of public service delivery. The accent will be on schools and services operating near capacity. For the sake of comprehensiveness, revenues and other public service considerations are also mentioned here.

7.03.7.1 Revenues

The major revenues associated with private residential development are property taxes and sales and use taxes.¹

7.03.7.1-1 Property Taxes

This is the most important revenue source associated with residential development since it is the largest continuing, direct revenue. The analyst will first estimate the value of the project. The methodology for this is provided in Section 5 if that cost information is not readily available from the project developer. Usually, that information will be supplied to the analyst. Methods for estimating residential property tax revenues also are provided in Section 5.

The analyst is reminded here that property tax collections from the proposed project are to be compared against an alternative, which may be no project or an alternative type of development having a different value. For the purposes of most analyses, a "constant dollar" estimate is recommended. In some cases, specifically a no-growth, no-project alternative, it will be appropriate to assign a land appreciation factor to the no-project alternative in order to reflect realistically the market pressures on land held vacant. The County Assessor's Office or local realtors will be the best source of information on an appreciation factor.

1

Since initial development fees and charges (i.e., engineering inspection, utility connection fees, drainage fees, etc.) generally cover service costs, there is no fiscal impact. Hence, the analyst should not bother to calculate these.

7.03.7.1-2 Retail Sales Taxes

The analyst also should estimate the increase in retail sales tax collections generated by a new residential project. Section 5.02 on retail sales taxes provides several methodologies related to population increase, consumer spending patterns, and levels. In using these, the analyst should ask the following:

- . Will consumer spending occur within the same jurisdiction as the housing development?
- . Are the proposed household income levels about the same as the existing average household income?

If the answer is yes to both questions, the simple methodologies in Section 5.02 apply. Hence, it is appropriate to estimate increased sales tax revenues on the basis of population increase times the average annual per capita taxable expenditures, using the most recent available data for Sacramento in the Board of Equalization's quarterly or annual reports on taxable sales in California.

If the answer is no to the first question above, this represents sales "leakage" and will not result in proportional revenues to the jurisdiction. If the answer to the second question is no, the analyst must adjust the estimate of annual per capita taxable expenditures accordingly.

7.03.7.1-3 Other Revenues

One type of revenue generated by housing is often overlooked. Various federal and state grant, revenue sharing, and tax rebate programs have the amount of funds determined by formulas which wholly or partially depend on population. Estimation of these taxes is discussed in Section 5.08.

7.03.7.2

Public Services and Their Costs

The difficulties involved in the provision of services, the magnitude of the cost alternatives (to gauge the importance of the problems), and possible modifications to mitigate unfavorable impacts are usually the most important part of a project's economic assessment. The analyst should be aware that the location of housing usually has only a moderate effect on the locale's assessed value; it often has a substantial impact on the cost of providing services.

7.03.7.2-1 Schools

Information as to the impact on schools should be determined, and the analyst is referred to Section 4.02 for impact assessment procedures. The fiscal picture is complex. It usually will not be substantially different from alternatives which locate the school children in other parts of the school district.

If the analyst decides to carry out a detailed school cost/revenue analysis, he should work with a CDEPA staff member acquainted with revenue limit estimating. Location can make a large difference with regard to either overcrowding or need for new schools; and, therefore, the analyst should investigate the capacity situation. The participation of school districts in this evaluation is essential. Their involvement has another benefit in that the school district and CDEPA can make a preliminary determination of the cost/revenue impact of the project.

7.03.7.2-2 Other Public Services

The analyst should investigate whether difficulties will be involved in providing police and fire services. The agencies

should be contacted so their input can be included. As well as identifying difficulties that can result in larger than average service costs to the agency, they can often suggest modifications (e.g., in street layout) that will allow them to perform their jobs more effectively. Police services are discussed in Section 4.03 and fire protection services in Section 4.04.

The utility situation should be summarized, including any difficulties or unusual costs in providing services and utility infrastructure already in place in anticipation of development. The focus should be on capacity for service for the whole neighborhood (and city) in the future; merely citing whether adequate capacity exists to accommodate this project without concern for future needs is apt to be misleading. Water services are discussed in Section 4.07 and wastewater services in Section 4.08.

The city or county department responsible for local streets also should have an opportunity to evaluate the proposed project. Again, the concern should be for future demands versus planned capacity. (See Section 4.05.)

The analyst may note whether adequate park and recreation facilities are available in the neighborhood. If there are none or they are inadequate, the parks and recreation agency should be asked about any plans they have for the area. The awareness of increasing development in an area of the community may assist the agency in assigning priorities for the use of its funds. (See Section 4.06.)

The analyst may wish to assess other services or provide a complete service cost estimate for a project. In that event, the analyst is referred to Section 4 for additional service methodologies, including libraries, storm drains, and general government, in addition to those services referenced in the above paragraphs.

SECTION 8

8.00 IMPACTS ON LAND USE

8.01 INTRODUCTION

The purpose of undertaking an impact assessment of land use policies, general, community and neighborhood plans, and individual land use and development projects is to consider essential needs for land, and to assess to what extent these needs and community goals are being met, and how they can be met best. More particularly, there is a need to assess land use supply and demand to determine the reasonableness of various land use designations throughout a planning area. The economic impact assessment attempts to ensure that economic considerations are included at the time of formulating and testing alternative land use plans, for it is clear that economic activities affect the demand for various land uses and, in fact, have specific land use needs. It is also clear that an economic assessment must describe what is likely to happen to public costs and revenues given a particular land use plan.

The impact assessment is a disclosure document. It presents findings which include interpretations of how plans, policies, and specific projects meet community goals and affect the local economy. This includes considering a proposed project and proposed plans in light of the alternatives in order to know the available courses of actions and facilitate decision-making on an explicit basis.

As previously discussed, the general framework for economic impact analysis distinguishes between policy and planning on one level and individual projects on the other level.

Accordingly, in the paragraphs below, land use is discussed first in the context of plan and policy formulation and then in terms of individual project impact.

8.02 FORMULATION OF PLANS AND POLICIES

8.02.1 LAND USE SUPPLY AND DEMAND

The purpose of undertaking an impact assessment of land use supply and demand is to determine the reasonableness of the allocation of various land use categories throughout a planning area. The assessment would be easier to make if there were some magic "right" combination of land uses. In fact, no magic formula exists although some planning theoreticians have devoted themselves to trying to express "correct" formulas. There are, however, relationships between population and economic projections and residential, retail and recreational land use, that are susceptible to quantification. Furthermore, there are relationships between land use policy, property taxation practices and land use patterns particularly affecting residential, industrial and agricultural uses that deserve assessment.

The appropriate circumstances for assessing land use demand and supply are limited. Assessment is most productive at the time of formulation of plans when alternative scenarios of future land use disposition are under consideration and their evaluation can benefit from an economic perspective.

The major objective in investigating economic activity in a community for general planning purposes is to be able to translate economic projections into future requirements for land use. A general plan should allocate enough land, in appropriate locations, for the expansion of industrial activity, for new residential areas which workers attracted to the area will require, for the service and commercial development they will support, for recreation and other necessary uses.

As discussed above in Section 7 on impacts on employment, a community's economy can be divided into two sectors, the economic base sector and the service sector, for the purpose of analyzing the economy's strength and potential. The service or local sector contains the service or residentiary industries, such as wholesale and retail trade, some construction, and business services, which produce goods and services that are paid for by local monies and consumed in the area rather than exported.

The economic base theory states that an initial employment opportunity generated by activity in the economic base sector will produce, through a multiplier effect, an expansion in the service economy sector because workers employed in the economic base industry sector will use their wages to purchase local goods and services. Persons employed in the local service sector also buy from that sector, continuing the multiplier expenditure effect on the original base export sector dollar expended in the local economy.

Generally, some endowment of natural resources or a locational advantage which an area possesses attracts economic base industries to locate in a particular area, and these industries require a certain amount of land. The workers they employ, and the service sector which they support, likewise require various amounts of land for commercial, residential, and other uses. The amount of land devoted to a particular use can fluctuate due to a number of factors, including changes in total employment. In addition, a change in industrial or commercial trends, such as the mode of transportation used to export processed goods, or a change in plant design, might affect the amount of land needed for economic uses, and social trends, such as changing housing preferences or family sizes, would also shift the amount of land required for residential related purposes.

Employment opportunities in the economic base industry are the initial stimulus of population growth, according to the economic

base theory. Service sector employment is a direct function of base sector employment, and the total number of employment opportunities an area contains will determine its overall population size.

There are some limitations to the economic information typically available. Some of this information can be directly applied to the city, or the planning area, but a great deal of these economic data, especially with regard to industrial activity and general economic trends, are only available for a county as a whole. Economic trends and long-range forecasts are very difficult to establish, in any case, even at the county level, let alone at the city level. The economic and industrial activity which will occur in an area is dependent upon many factors, most of which are not related to activities occurring within a city itself, and most of which are beyond a city's control. Although the need for commercial land use can be roughly estimated, based upon population and income forecasts (and assumptions on the proportion of the residents' disposable income that will be spent outside an area), a similar relatively well-defined relationship does not exist between population size and the amount of industrial land use that can be supported. In fact, the level of population is dependent to a large degree upon the employment opportunities offered within a convenient commuting radius, and not vice versa. For all these reasons an analysis of economic or industrial base is generally expressed in countywide terms. Such a general discussion is nevertheless valuable in establishing a generalized framework within which a city's local economy must fit, even though the direct applicability to detailed planning for industrial activity in a city or part of a county is limited.

The service sector of a local economy consists of wholesale and retail trade, finance, real estate and insurance operations, local government functions, and a portion of the transportation and construction activity in the area. The size of this sector and the amount of land various components will require in any planning area depend on several factors, including:

the size and income of the resident population;

the amount of competitive development nearby;

the level of basic sector employment in the "market area";

the area's location with regard to convenient transportation routes and tourist travel paths;

the service sector products needed by the economic base sector operations.

Measuring the size and status of the service sector is hampered by the lack of information regarding the transactions which occur there. In the commercial sector, taxable retail sales information is available for analysis, but wholesale trade and the demand for office space and services can only be estimated.

One example of an interrelationship of land uses and economic activity is that economic or industrial activity leads directly to a need for industrial land use, which must be reflected in a general plan; this activity also creates employment in the industry itself as well as a need for employment in fields which provide services to the industrial employees; this total employment is translated into population levels and the population creates a demand for housing (residential land use) as well as for goods and services (which creates a demand for commercial land use). The accompanying model also illustrates that there are various factors which limit the supply of land for urban purposes, such as hazardous areas (e.g., flood plains or fault zones), and areas suitable for agricultural use. The economic and fiscal constraints involved in providing areas with public facilities can also serve to limit the effective supply of land.

This model is a simplification of reality, of course. Possible economic limitations in the provision of certain land uses (such as housing, commercial, or industrial development) are not

reflected. This could represent another way of saying that there is insufficient demand in monetary terms to pay for the cost of providing these developments.

Also public policies, in addition to those represented by regulatory devices, such as a policy calling for the retention of historical structures, could decrease the effective supply of land for new construction. In spite of the limitations of the diagram, it does serve to place the various topics presented in this report into perspective, concerning their relationship with each other as well as their relationship to the preparation of a general plan.

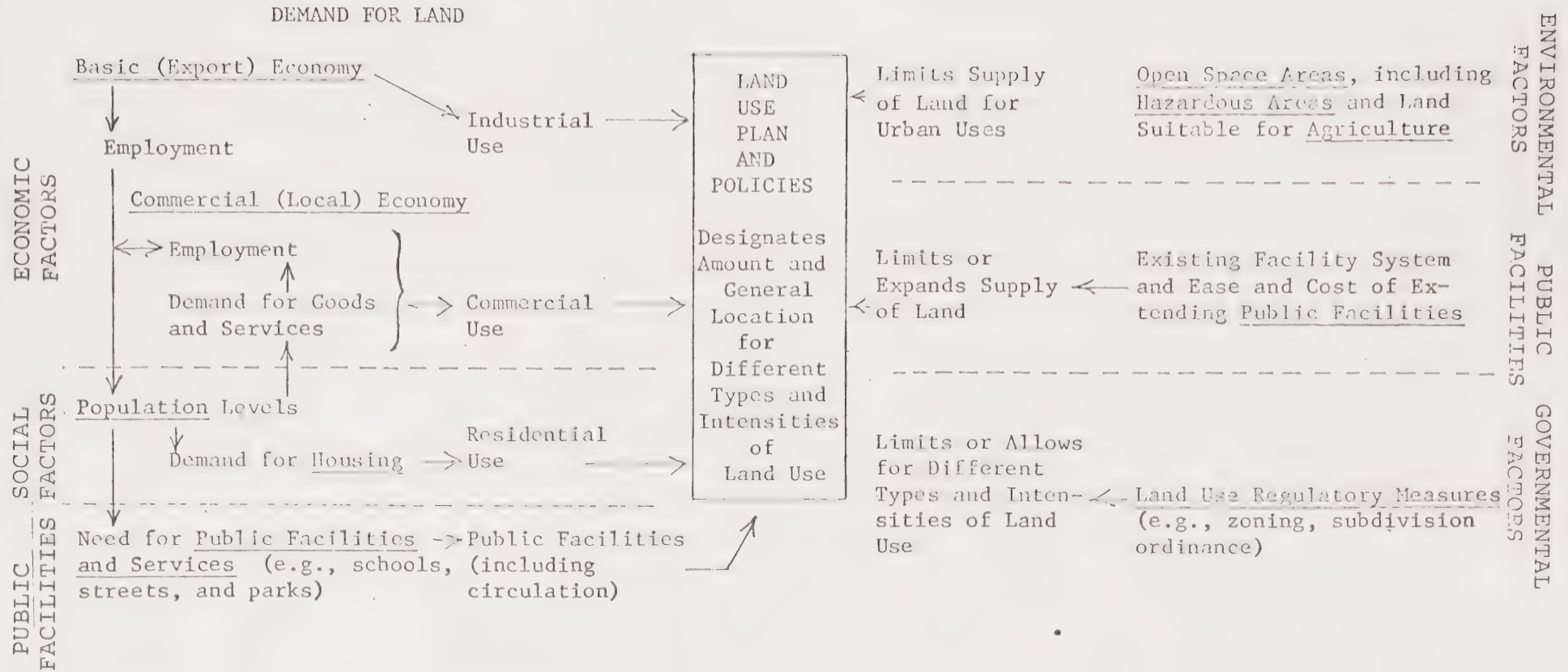
Plan assessment calls for extensive analysis of land use. It is through the legally adopted general plan and zoning ordinances (which should be consistent with each other) that land use in cities and counties is directly controlled. Obviously, the plan and zoning should reflect the need for space for worthwhile activities. The needs should bear an appropriate quantitative relationship to each other (i.e., adequate residential land to accommodate the homes that can be anticipated given the land allocated to employment sites; a balance between the population and the amount of land devoted to population-serving employment, etc.). In other words, the assessment of a general plan should complete the quantitative chains relating various land uses.

The amount of land required for a given land use is a function both of the amount of activity (e.g., the number of households which require homes) and the intensity of activity or density. Methods for projecting the amount of activity are described in the Economic Practices Manual and in this report.

The analyst can follow the model on page 271 and develop the required economic projections for base and service employment and for population from the methodologies presented in Section 6.02.1-5. Through the sequence described, employment is the prime generator of population expansion. Population is derived

FIGURE 8.02-1

LAND USE SUPPLY AND DEMAND MODEL



from labor force participation rates which consider the characteristics of an area's population (e.g., the expected percent of employed to unemployed, the latter including retirees, children and other non-employed segments). Housing requirements are then based on population projections and the expected socioeconomic characteristics of that population, as described above in Section 7. Land needs for public services and facilities are presented in Section 4.

Densities which are not explicit in zoning must be estimated.

Bench mark densities or land requirement for industrial, office and retail uses given in the Practices Manual, are provided in the following tables for illustrative purposes.

TABLE 8.02-1
INDUSTRIAL LAND REQUIREMENTS
SAN FRANCISCO BAY AREA

Type Industry	Land Area (No. S.F./ per Employee)	Building Area (No. S.F./ per Employee)	Employment (No. employees per/acre or No. employees per/1000 S.F. Building Area)
			<u>No. employees per/1000 S.F. Building Area)</u>
Heavy Industrial	*	1,000-5,000	20-30/acre
Light Industrial ₁	3,000-6,000	400-1,000	15-30/acre or 1-2.5/1,000 S.F.

*No bench mark because of wide variation in required site areas.

¹Includes small products manufacturing, assembly, warehousing, partial office, research and development.

Source: Cabot, Cabot & Forbes, Coldwell Banker, Inc., McDonald & Smart, Inc.

TABLE 8.02-2
OFFICE SPACE LAND REQUIREMENTS
SAN FRANCISCO BAY AREA

<u>Type</u> <u>Office</u> <u>Building</u>	<u>Land Area</u> <u>(No. S.F.</u> <u>per employee)</u>	<u>Building Area</u> <u>(No. S.F.</u> <u>per employee)</u>	<u>Employment</u> <u>(No. employees per</u> <u>acre or per 1,000</u> <u>S.F. of building)</u>
High Rise	*	225-275 (gr.)	3.5-4.5/acre
Garden	800-1,200	225-275 (gr.)	15-30/acre 3.5-4.5/1,000 S.F.

*Signifies no bench mark available due to wide variation in height.

¹Land is likely to include parking (1.5 spaces or 600 sq. ft. per employees) and landscaping at 25% of site.

Source: Informal survey of Bay Area office leasing agents,
McDonald & Smart, Inc., December, 1974.

TABLE 8.02-3
RETAIL LAND REQUIREMENTS

Median Household Income (1969) ¹	\$ 11,800
Annual Inflation (Estimate)	5%
Inflation 1969-1972 (3 x 5%)	15%
Median Household Income, 1972 (\$11,800 x 1.15)	\$ 13,570
Percent Expended for Retail Purchases ²	40%
Retail Purchases Per Family	\$ 5,430
Percent Expended Locally (Estimate)	80%
Local Retail Purchases Per Household	\$ 4,340
Number of Local Households	10,000
Total Local Retail Purchases	\$43,400,000
Sales to Non-Local Buyers (Estimate)	\$ 3,000,000
Total Local Retails Sales	\$46,400,000
Sales Per Square Foot Floor Space (weighted average from table above)	\$ 80
Total Square Feet Floor Space	580,000
Average Ratio Floor Space to Land	1:2.7
Total Square Feet Land Required	1,566,000

¹U.S. Census, San Francisco-Oakland SMSA.

²Estimated based on data in "Three Budgets for an Urban Family of Four Persons," 1969-70, Bureau of Labor Statistics, 1570-5 Supplement.

TABLE 8.02-4
TYPICAL SHOPPING CENTER RELATIONSHIPS

	<u>Neighborhood</u>	<u>Community</u>	<u>Regional</u>
Land Area (acres)	3-4	5-10	20-60+
Building Area (sq. ft.)	40,000-90,000	100,000-300,000	400,000-1,000,000+
Average Land to Floor Space Ratio	2.7:1	2.7:1	1.5-3:1
Parking Spaces per 1000 sq. ft.	3-6.5	4-8	5-7
No. tenants (range)	6-15	15-30	30-100+
Min. Required Market Area Population	5,000-40,000	40,000-150,000	150,000+
Median Sales/sq. ft. (\$1972)	80	60	60

Sources: Dollars and Cents of Shopping Centers, 1972,
Community Builders Handbook, 1968.

Relating (1) the activity and density information explicit in a proposed general plan and (2) reasonable estimates for unspecified densities reveals how well the land uses are balanced. The analyst should keep in mind that bench mark densities and employment multipliers are not precise and that precision in the comparison of land allocations should not be expected. On the other hand, it should be possible to recognize a situation where the land designated for industrial use exceeds the projected need by, say, a factor of four (incidentally, not an uncommon situation).

In some cases, the adequate allocation of land for certain other uses also may be relevant. One concern could be the amount of park and recreation space. Section 4.06 in this report describes methods for estimating park and recreation space needs as well as giving national standards against which to measure local land allocations. The provision of adequate sites for other public facilities such as schools, libraries, etc. may be included in the general plan and worthy of note. In all cases, the plan should include planning for solid waste management. By law, Sacramento County must have a solid waste plan by January 1, 1976. The county plan should incorporate municipal plans, or, where appropriate, the county's approach to preparing such a plan should include sifting out conflicting or inappropriate municipal plans in order to achieve public economies.

8.02.2

UNIQUE RESOURCES

When assessing a proposed or draft general plan, the analyst should check for any key economic goals and activities which may have specific land use needs on which they are dependent. The activities would usually be economic base (rather than retail or service). The land use needs may be for raw materials (a quarry, a mining company or an industry that uses mined products). Other situations may involve the need for convenient access to transportation facilities, including waterways. The most difficult to analyze are visitor attractions which depend on the amenities of their environment to attract patronage.

The analyst should evaluate the impact that the general plan with its growth projections will have on any economic activities which fit the above description. Whether or not these activities will be hard-pressed to compete financially for the land they require should be evaluated. The analyst also should ask whether nearby land use changes will impact negatively on their operations.

Calling attention to these potential problems does not mean that land uses should be preserved for sensitive businesses at all cost. Activities offering higher bids for the space reflect the higher value the market puts on the alternative use of the space. In many situations, land use transition is appropriate.

An economic assessment of impacts, however, should call attention to the probable economic consequences so that, if the impacts are undesirable, they can be mitigated or prevented.

8.02.3 UNDEVELOPED LAND

Most people feel that a significant proportion of land should remain undeveloped. There are several reasons for the general plan to set aside areas for non-development, and economic analysis is involved to some extent in assessing whether the policy and related land use designation is realistic in all of them. The most frequent reasons for holding land in an undeveloped condition are:

- . Limitations due to site characteristics.
- . Appropriate uses, such as agriculture, which do not require construction.
- . Amenity.
- . Land not required for immediate growth.
- . Public usable open space, or preservation of unique resources, is a public goal or policy.

Seismic zones, flood, plains, and slide areas are examples of site characteristics that should be considered before buildings are allowed on the site. The city is in the position, however, of having to base its land use regulations solely on the problems caused by the characteristics of the site (and not on its desirability as open space). This allows for the possibility that a developer may mitigate the site's problems through extra expenditures. An engineer and economic analyst working together can determine whether any such solutions are likely to exist and, by estimating their cost, assess their feasibility.

Parks and recreation are land uses that usually minimize building construction. Where land needs to be purchased for these uses, the estimated cost (along with the cost of operation) should be part of the economic information. Perhaps some situations may arise where commercial (private) recreational use of essentially undeveloped land is economically feasible.

The primary use where construction is minimal is agricultural. People have recently become concerned that the development of prime agricultural land, usually for housing, may be socially disadvantageous and, in some areas, a threat to the local economy.

The land use for which the market is willing to pay the highest price is termed "the highest and best use," and the analyst should be aware that the market probably reflects the fact that potential residents value the site (compared with the alternatives) more than farmers (compared with alternative farm sites). If the public (through its elected representatives) feels that the land is best maintained in agriculture, then that use should be protected by giving the land an agricultural zoning classification, Williamson Act designation, or through other means. In most situations, such zoning will severely limit, at least for a time, development potential. In some cases, "ranch estate" or "hobby farm" zoning may be adopted. In such categories, a minimum lot size required for construction of a new home is likely to be between 5 and 40 acres.

The analyst may be asked to check the financial feasibility of using the land for agriculture when it is so designated in the plan. If the analyst undertakes the task of examining the feasibility of agriculture, the analyst should seek input from many people, including, of course, farmers in the area. The University of California Agricultural Extension agent in the county is usually particularly helpful.¹

The amenity of open space is reflected in the psychological, aesthetic and visual benefits of not having uninterrupted development. The analyst is more concerned with the efficiency inherent in the pattern of development. Two areas of costs to the public in particular vary significantly for spread out versus clustered distributions of the same population. Public transit systems cannot be undertaken unless the density of riders along their routes is great enough to provide sufficient numbers of riders to justify the cost. Without public transit, a street system sufficient to accommodate everyone in private vehicles must be built and maintained and, even then, the young, the old, and the poor and the disabled are disadvantaged. Utilities constitute the other major area where actual costs are dependent on the distribution pattern of the population. Low density distribution results in significantly higher costs.²

Unfortunately, the complexity of the situation makes it difficult for the analyst to quantify the costs involved. Nevertheless, attention can be called to the existence of these costs.

¹See also Baxter, McDonald & Smart, Inc., "The Viability of Agriculture in Marin," September, 1973.

²See Real Estate Research Corporation, the Costs of Sprawl: Environmental and Economic Costs of Alternative Residential Patterns at the Urban Fringe, prepared for the Council on Environmental Quality, Department of Housing and Urban Development, and the Environmental Protection Agency, April, 1974.

The next area of open space in the list above is land not required for immediate growth. Sacramento County has the zoning categories "agriculture-recreational reserve" and "agriculture-urban reserve" which are of this type. The analyst may wish to check to see that growth will not prematurely absorb the land zoned "available for development" and put pressure on these areas in the immediate future. The employment and population growth projections translated into land use needs can identify the appropriate time when (and if) the transition of land from a reserve category should be considered.

8.03

NEIGHBORHOOD PLAN AND PROJECT ASSESSMENT

The prime reference for both neighborhood plan and project assessment is the general plan. The majority of the economic factors involved in a smaller land area should have been considered during the preparation of the general plan. Balancing land uses, employment, and residential land, for example, probably does not hold on a neighborhood level.

The neighborhood plan, however, is of sufficient scope to balance some land uses. In particular, the quantity of retail space for which a market can be anticipated can be forecasted. The analyst can check to see if any scarce site resources are in the neighborhood and, if so, that their use is appropriately allocated. The desirability of some undeveloped land also obtains on the neighborhood level.

The assessment of large projects may approach the perspective suggested for neighborhood plans. In particular, projects which can be handled under planned unit development zoning can allow for detailed consideration of the potential advantages of clustering, which may foster cost savings.

Every project assessment should consider the relationship of the activity on the project site to the activity on nearby

parcels. Table 8.03-1 offers some general guidelines as to the compatibility of various land uses, but the analyst should realize that every situation has unique circumstances.

Finally, the primary reference concerning land use should be to plans -- the general plan, the plan for the neighborhood, functional plans, and the plans for any relevant service agencies.

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TABLE 8.03-1

LAND USE COMPATIBILITY

Land Use		Land Use							
		R/1	R/2	Com/1	Com/2	Com/3	I/1	I/2	I/3
Low/Residential	R/1	+	o	o	o	-	o	-	-
High/Residential	R/2	o	+	+	o	o	o	-	-
Neighborhood Commercial	Com/1	o	+	+	+	o	+	o	-
Business Offices	Com/2	o	o	+	+	+	+	+	-
General Commercial	Com/3	-	o	o	+	+	+	+	-
Clean, Light Industry	I/1	o	o	+	+	+	+	o	o
Transportation and Warehousing Industry	I/2	-	-	o	+	+	o	+	o
Heavy Industry	I/3	-	-	-	-	-	o	o	+
Elementary School	ES	+	+	o	-	-	o	-	-
High School	HS	+	+	o	o	-	o	-	-
	Parks	+	+	+	+	+	+	+	+

Key: - not usually compatible
o compatibility depends on specifics
+ usually compatible

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